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ABSTRACT

This collection of activities is designed to help students develop critical thinking skills. The activities are non-graded and can be used from upper elementary to high school. The reading levels vary from no reading required to very little reading required and can be used effectively with students who are poor readers, bilingual, or at a special education level. These brain stretchers are effective tools that can be used to assist teachers in the individualization process, encourage independent work, foster motivation, and provide enrichment. The activities are organized in three sections: (1) Patterns; (2) Logic; and (3) Puzzles. Seven stretchers are provided in the pattern recognition section and use topics such as magic triangles. The logic section provides seven activities that involve number relations and equation mazes. The puzzle section contains six number story, calculator, and domino puzzles. Answer keys are included. (DDR)

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BRAIN STRETCHERS

BOOK 2

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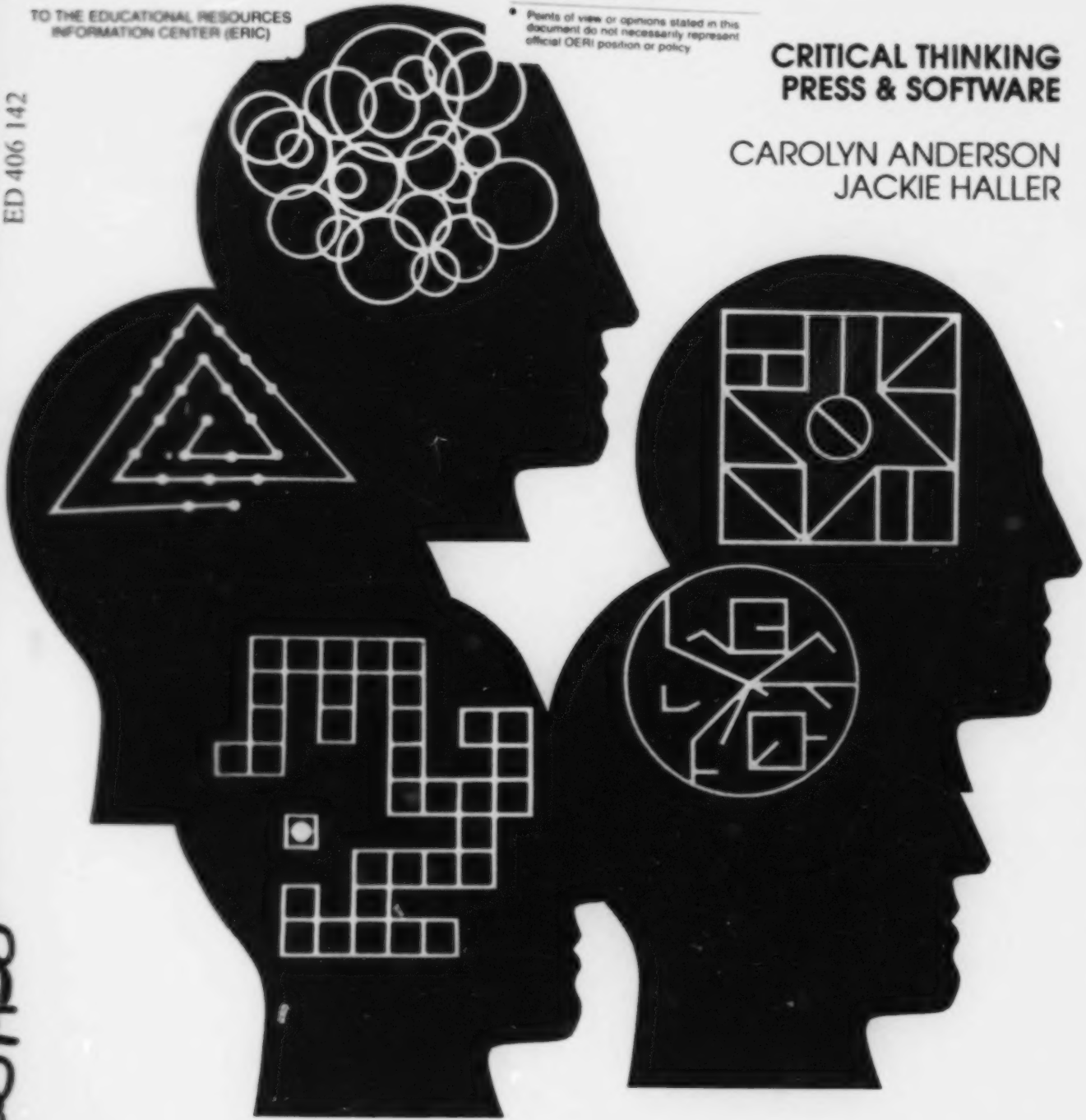
CAROLYN ANDERSON
JACKIE HALLER



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BRAIN STRETCHERS
Book 2

Carolyn Anderson and Jackie Haller

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FOREWARD

BRAIN STRETCHERS offers a wide variety of 60 pages of puzzles to help develop critical thinking in your classroom. The materials are roughly middle school complexity but since they are non graded, they may be used anywhere from upper elementary to high school, depending on student needs. Reading levels vary from no read to lo read which will help poor readers, bilinguals, lower verbals and some special eds. The puzzles may be used for individualization, independent work, motivation and enrichment.

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Find and circle the following 24 numbers in the maze below. The numbers will be found in a straight line horizontally, vertically or diagonally. Careful some have been placed going backwards.

1.	129	13.	321
2.	2603	14.	2079
3.	1291	15.	6655
4.	12861	16.	3003
5.	20051	17.	4207
6.	5044	18.	1261
7.	33445	19.	203
8.	21076	20.	4095
9.	235	21.	2299
10.	1291	22.	4298
11.	3459	23.	2176
12.	20110	24.	20105

0 3 4 5 2 1 0 3 4 5 6 9 2 1 0 3 2
6 3 4 6 9 6 5 1 2 4 4 0 5 6 5 0 4
5 7 1 0 2 1 0 9 3 4 5 1 0 2 1 3 9
7 6 0 1 2 9 1 2 5 1 0 2 1 0 4 3 1
0 2 1 1 5 6 9 1 1 2 0 3 5 7 7 9 5
5 6 9 2 2 3 1 0 5 8 9 2 4 6 7 9 8
5 9 6 7 1 3 8 6 9 0 1 0
5 3 2 1 0 4 8 1 5 0 0 2
9 6 2 1 5 4 6 7 1 2 8 3
3 1 2 6 8 5 6 6 5 5 5 1
0 7 0 8 6 5 7 2 7 6 8 0
6 0 1 2 0 4 1 1 3 2 1 2
2 7 9 1 5 4 3 4 0 3 0 2 2 8 0 7 9
1 8 6 9 9 2 2 0 0 4 7 9 6 8 1 0 4
2 0 1 1 0 8 2 9 1 5 1 3 0 7 4 5 3
7 9 1 0 5 7 1 5 6 9 4 2 7 6 0 1 2
5 8 9 7 0 2 3 1 2 6 3 1 1 9 7 2 3
7 6 5 1 2 4 2 7 1 5 0 8 2 3 1 6 4

Find and circle the following 24 numbers in the maze below. The numbers will be found in a straight line horizontally, vertically or diagonally. Careful some have been placed going backwards.

1. 12345
2. 6789
3. 02468
4. 13579
5. 22386
6. 12961
7. 2845
8. 52525
9. 10196
10. 296
11. 12928
12. 3577
13. 0809
14. 1293
15. 98760
16. 5413
17. 2189
18. 1246
19. 72809
20. 127
21. 2654
22. 3827
23. 692018
24. 219345

2 0 3 1 4 2 8 6 7 3 0 0 4 5 2 5
1 1 2 6 3 5 2 1 0 1 2 3 9 6 4 1
4 1 2 0 4 7 8 2 7 4 2 4 8 3 7 0
1 4 6 3 1 8 4 7 6 3 1 9 9 7 8 6
2 9 1 2 4 6 5 8 6 9 8 1 2 0 3 8
8 2 9 6 0 5 9 2 1 4 2 0 5 1 2 1
6 6 2 9 3 0 1 2 8 2 0 2 4 5 6 3
1 5 0 1 4 3 0 2 1 2 5 0 9 8 7 6
2 4 6 0 7 0 9 2 3 2 1 9 7 5 3 1
7 5 3 1 2 2 8 9 5 8 0 1 2 3 4 2
1 2 7 0 1 4 5 0 8 3 3 7 5 2 1 8
9 2 3 5 6 2 1 9 9 2 9 4 7 0 6 0
0 4 5 7 2 8 3 6 7 5 1 2 4 5 8 1
6 6 1 2 1 8 9 5 1 0 3 2 1 6 3 9
5 0 2 0 3 1 6 0 2 6 4 1 3 0 2 6
4 9 2 9 4 5 4 3 4 7 5 2 0 1 2 4
3 9 0 9 7 6 2 2 4 8 5 0 6 7 4 5
6 0 4 2 8 6 1 7 0 9 0 8 2 7 0 5

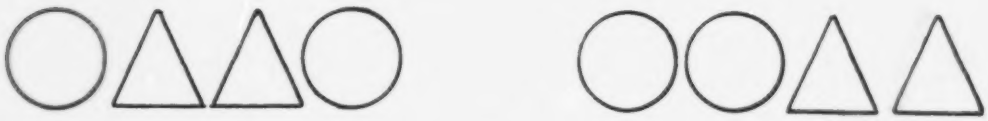
Find and circle the following 24 numbers in the maze below. The numbers will be found in a straight line horizontally, vertically or diagonally. Careful some have been placed going backwards.

1.	1965	13.	54116
2.	5174	14.	09877
3.	21761	15.	29111
4.	82143	16.	10017
5.	21511	17.	9779
6.	72130	18.	76150
7.	2176	19.	2194
8.	9886	20.	5741
9.	4377	21.	4888
10.	8699	22.	91001
11.	1299	23.	6189
12.	6798	24.	929

0 2 7 0 2 3 3 1 1 5 1 2 8
4 9 8 9 7 1 4 6 5 7 7 1 9 6
5 0 2 8 8 1 1 6 0 3 8 9 7 1 9
6 1 6 7 5 6 2 1 5 1 5 8 6 9 8 9
2 7 7 1 9 8 4 3 1 2 9 8 7 1 2 2
1 8 7 2 1 5 8 4 6 1 1 4 5 0 3 1
6 4 7 1 6 4 9 5
7 1 2 2 3 4 7 6
1 8 0 1 8 7 6 5
2 9 2 1 0 0 1 9
9 3 4 5 7 8 4 1
7 1 0 0 9 3 4 5
7 5 5 4 7 3 1 2 7 6 1 4 6 3 8 7
9 0 1 7 5 0 1 9 0 0 6 7 1 2 5 6
9 8 6 6 1 9 2 3 0 1 6 7 8 6 1 2
1 7 8 4 4 1 1 8 2 8 6 9 9 0 8
2 9 4 2 7 6 7 1 8 1 3 4 2 1
9 7 6 5 1 8 0 9 4 3 7 6 9

You are to change the pattern below by moving only the given number of figures.

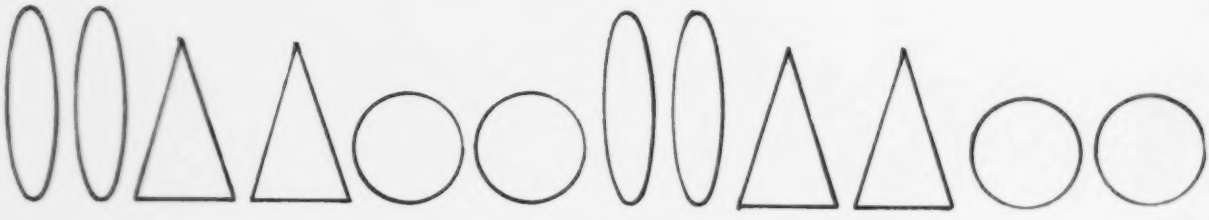
Sample: Move 2 figures to get the pattern on the right when starting with the pattern on the left.



Solution:

Move 6 figures

to get

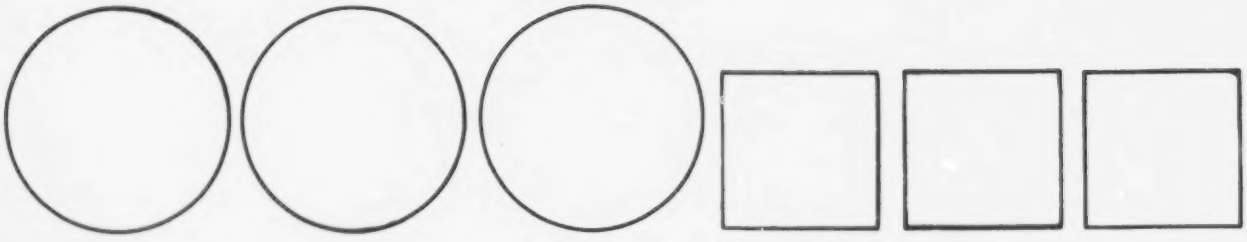


You are to change the pattern below by moving only the given number of figures.

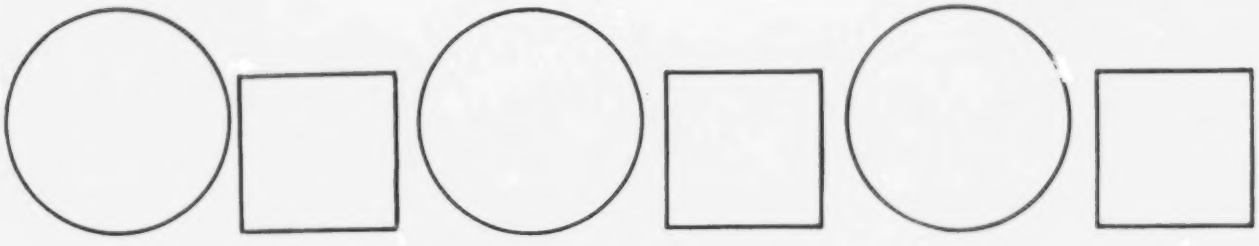
Sample: Move 2 figures to get the pattern on the right when starting with the pattern on the left.

Solution:

Move 2 figures



to make



You are to change the pattern below by moving only the given number of figures.

Sample: Move 2 figures to get the pattern on the right when starting with the pattern on the left.

Solution:

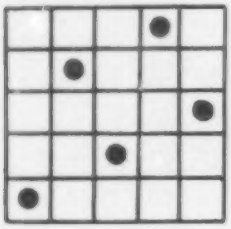
Move 3 figures

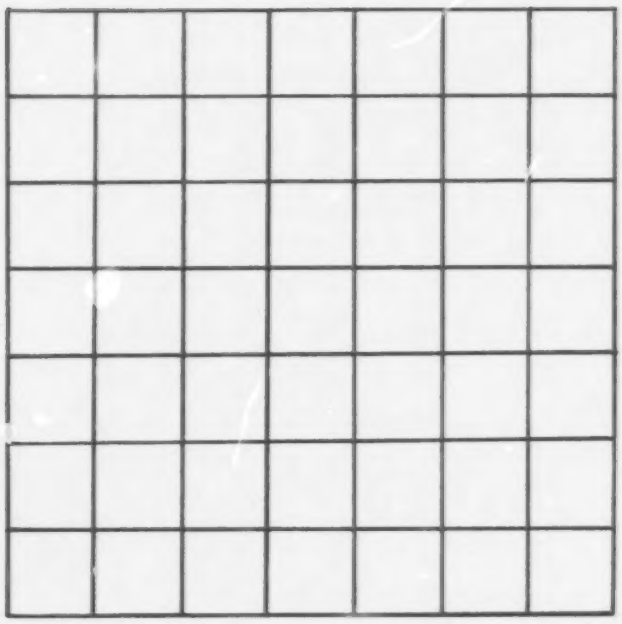
to get

11

Place 7 dots in the following 7X7 figure so that there will be no more than one dot per row, column, or diagonal.

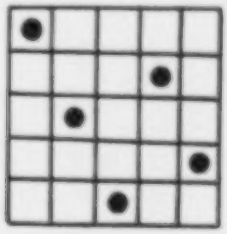
Example: Place 5 dots in the following 5X5 figure so that there will be no more than one dot per row, column, or diagonal.

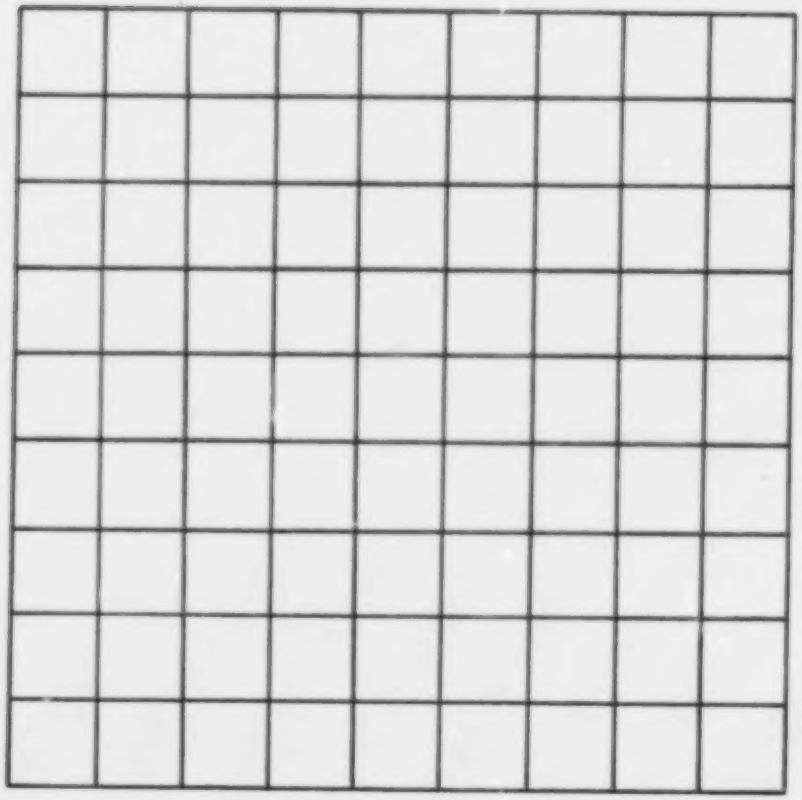




Place 9 dots in the following 9X9 figure so that there will be no more than one dot per row, column, or diagonal.

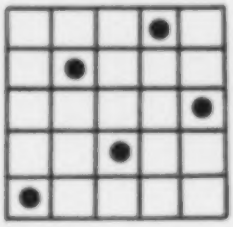
Example: Place 5 dots in the following 5X5 figure so that there will be no more than one dot per row, column, or diagonal.

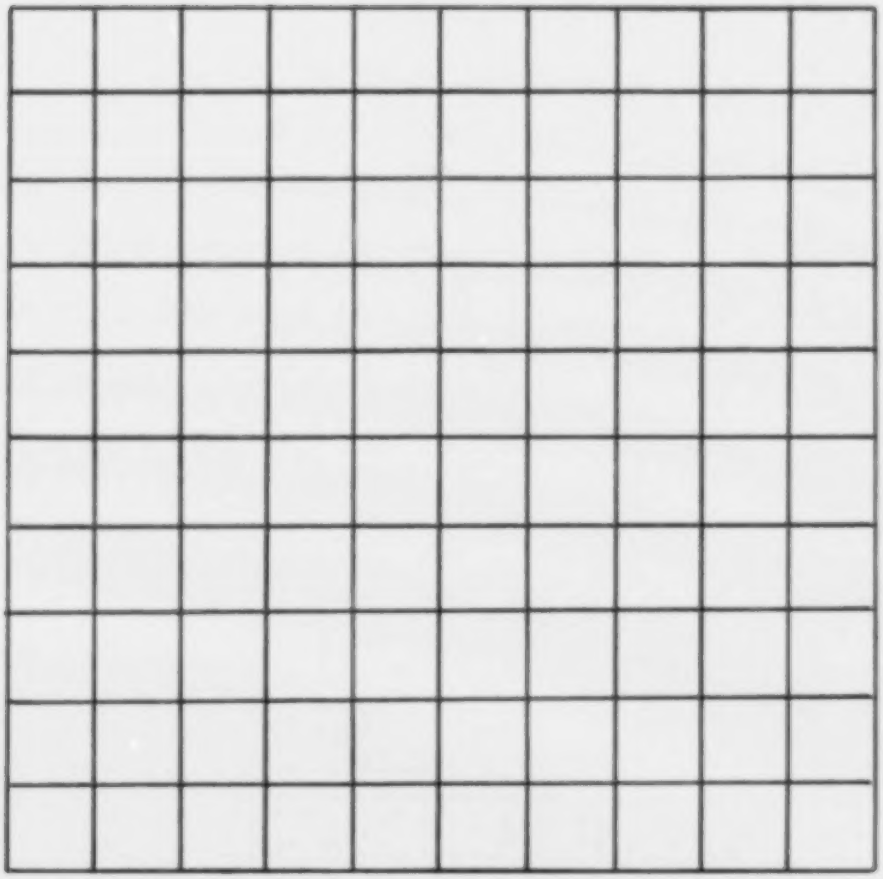




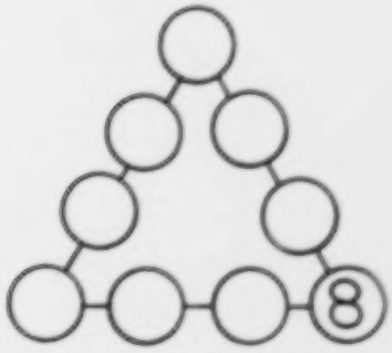
Place 10 dots in the following 10X10 figure so that there will be no more than one dot per row, column, or diagonal.

Example: Place 5 dots in the following 5X5 figure so that there will be no more than one dot per row, column, or diagonal.

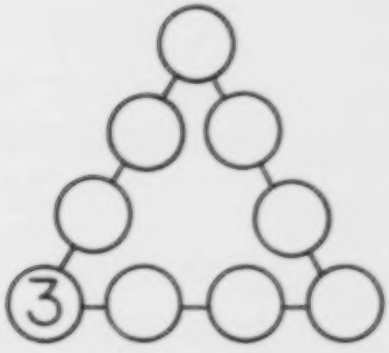




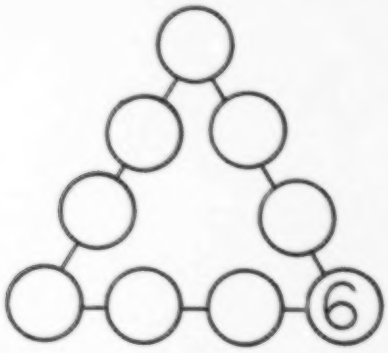
Place the numbers 1-9 in the nine circles below so that the sum of each side of the triangle is 20. Try to do it with the "8" placed for you.



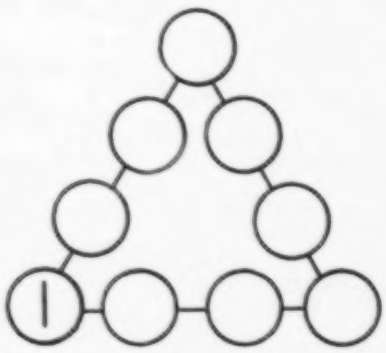
Place the numbers 1-9 in the nine circles below so that the sum of each side of the triangle is 20. Try to do it with the "3" placed for you.



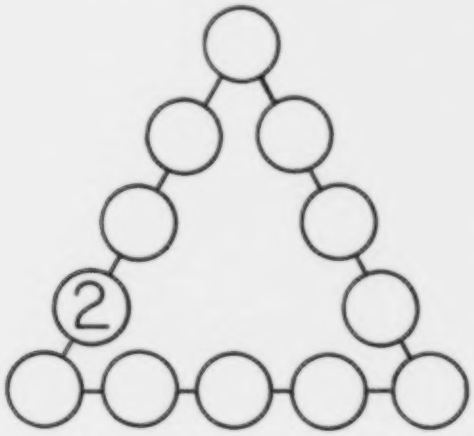
Place the numbers 1-9 in the nine circles below so that the sum of each side of the triangle is 20. Try to do it with the "6" placed for you.



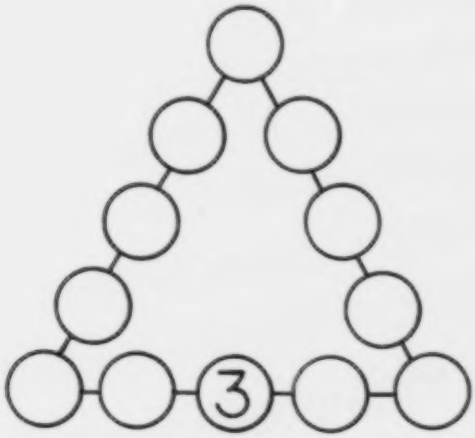
Place the numbers 1-9 in the nine circles below so that the sum of each side of the triangle is 20. Try to do it with the "1" placed for you.



Place the numbers 1-12 in the twelve circles below so that the sum of each side of the triangle is 36. Try to do it with the "2" placed for you.

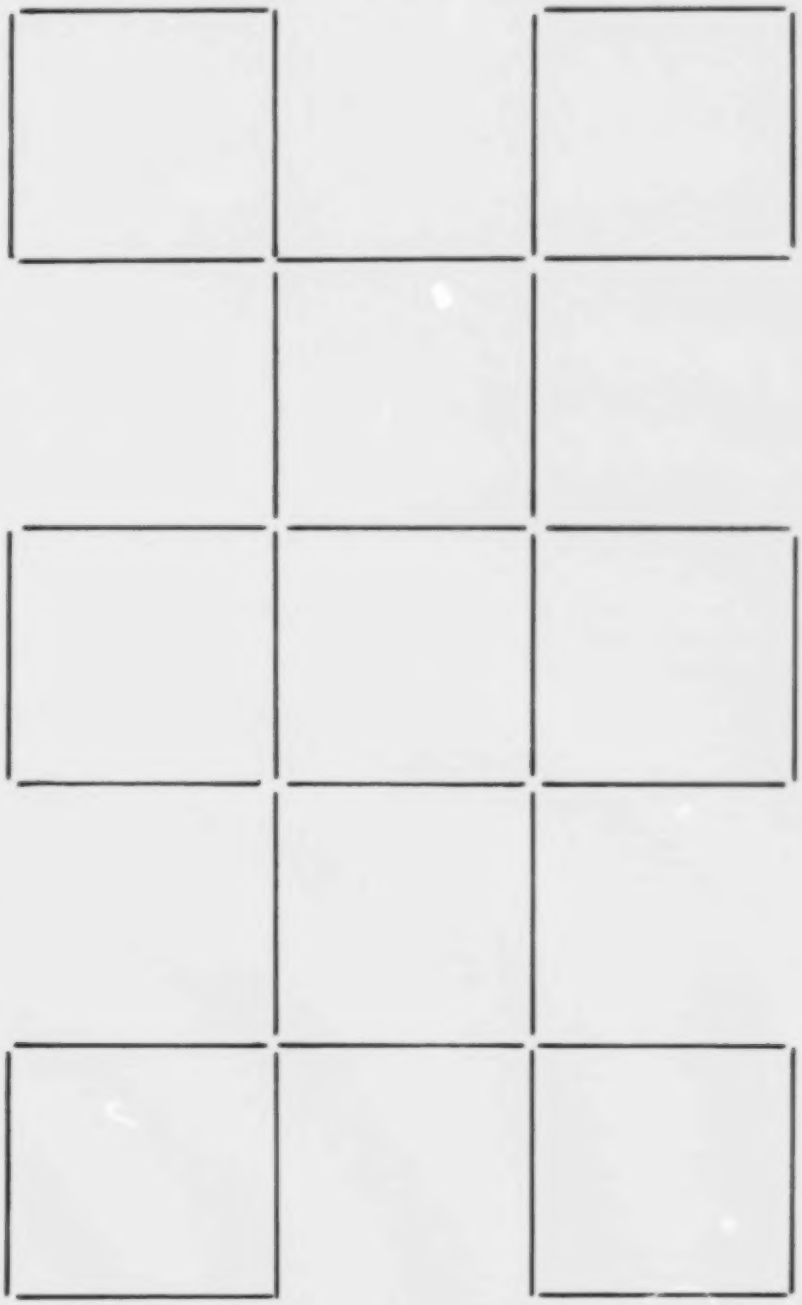


Place the numbers 1-12 in the twelve circles below so that the sum of each side of the triangle is 36. Try to do it with the "3" placed for you.

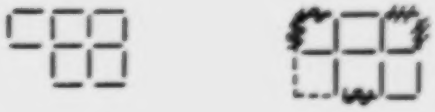


Here is a sample puzzle: These boxes are made from 15 matches. From the 5 boxes shown you are to make 3 boxes. Do this by moving 2 matches to new positions and removing 3 matches completely. In the sample notice that moved lines have been slashed through and relocated with dotted lines. Removed lines are marked out with a curved line.

Move 5 matches. Remove 1 match completely to make 12 boxes.

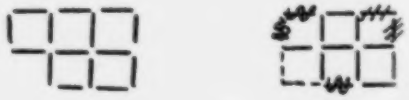


Here is a sample puzzle: These boxes are made from 15 matches. From the 5 boxes shown you are to make 3 boxes. Do this by moving 2 matches to new positions and removing 3 matches completely. In the sample notice that moved lines have been slashed through and relocated with dotted lines. Removed lines are marked out with a curved line.

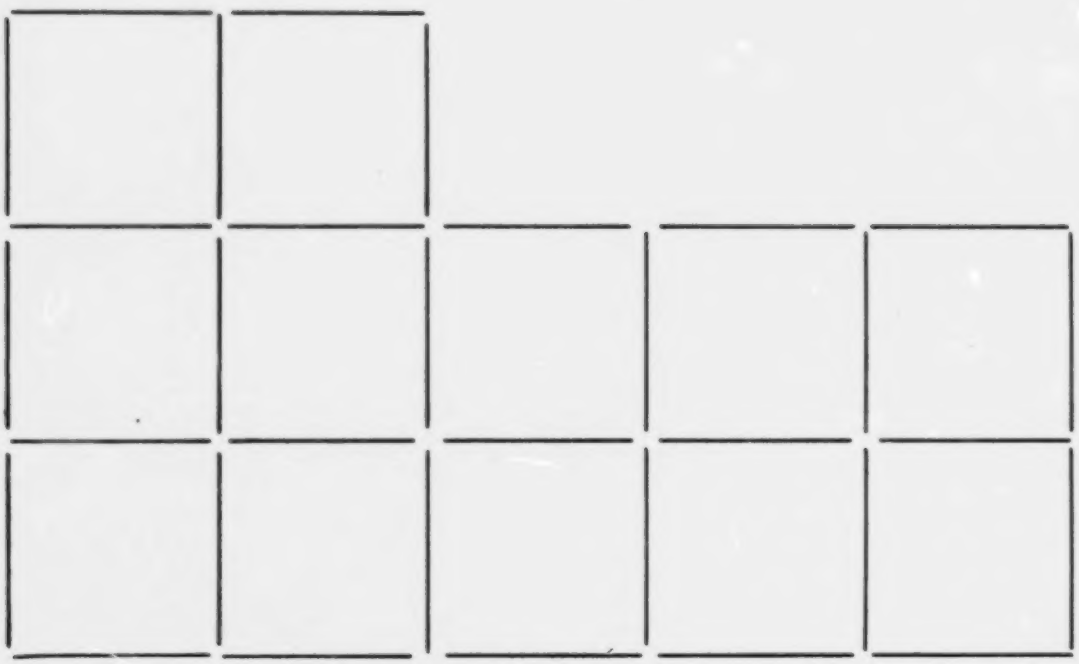


Move 4 matches to make 7 boxes

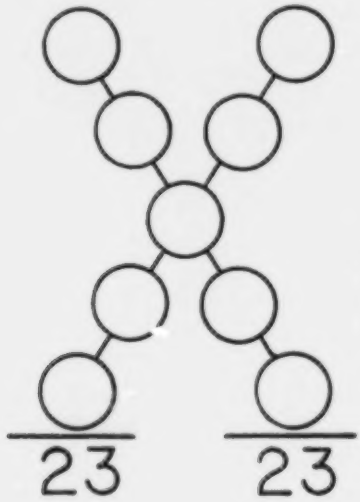
Here is a sample puzzle: These boxes are made from 15 matches. From the 5 boxes shown you are to make 3 boxes. Do this by moving 2 matches to new positions and removing 3 matches completely. In the sample notice that moved lines have been slashed through and relocated with dotted lines. Removed lines are marked out with a curved line.



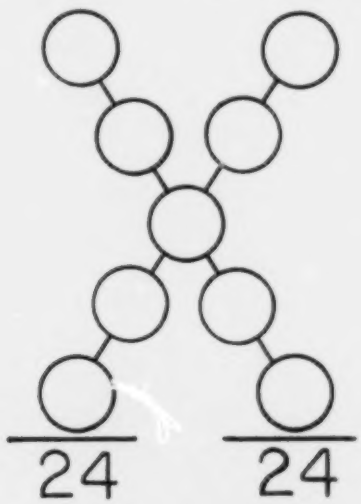
Remove 2 matches. Move 2 other matches and make 5 boxes.



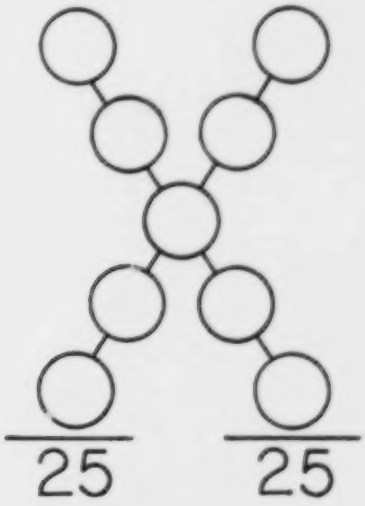
Place the numbers from 1-9 in the nine circles below making the sum of each of the two columns 23.



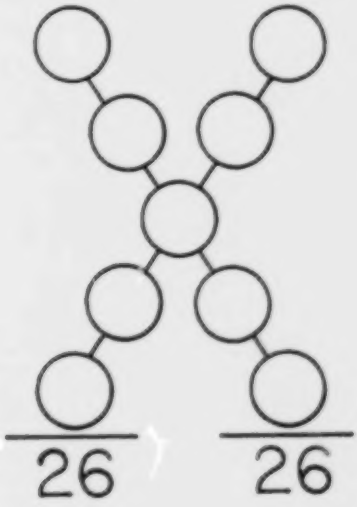
Place the numbers from 1-9 in the nine circles below making the sum of each of the two columns 24.



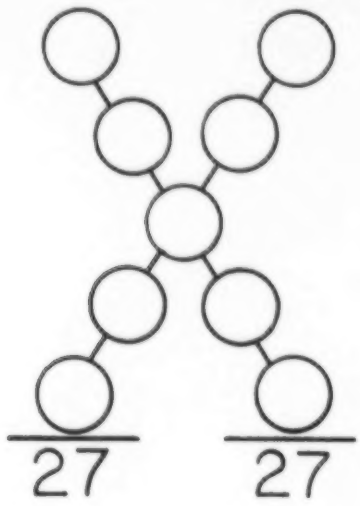
Place the numbers from 1-9 in the nine circles below making the sum of each of the two columns 25.



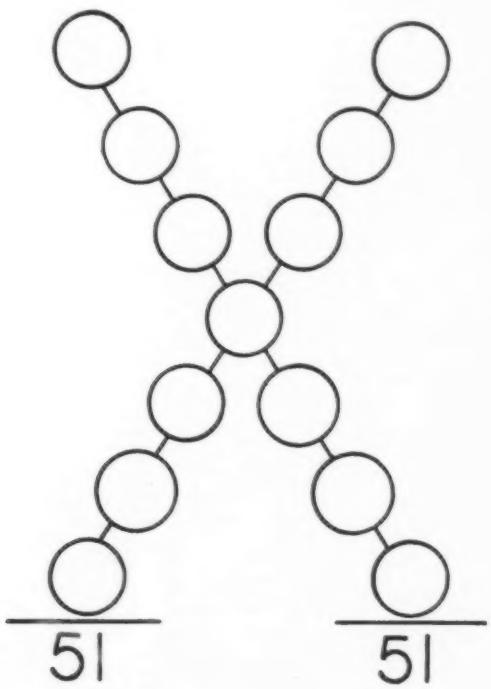
Place the numbers from 1-9 in the nine circles below making the sum of each of the two columns 26.



Place the numbers from 1-9 in the nine circles below making the sum of each of the two columns 27.



Place the numbers from 1-13 in the thirteen circles below making the sum of each of the two columns 51.



Each of the mathematical words listed can be found in the puzzle. The words may be horizontal, diagonal, or vertical. They may also be written forward or backward. See if you can find them ALL.

T W N E E T R U O F E E T
S I E Y N N O S O N I E E
E W E S X E I N I G V E I
V Y T U E X E N H L V L G
E T R D T V T T E I Y E H
N N I Y E S E W F T R V T
T E H S I R T N F I Y E E
Y W T X G W D I T O F N E
Y T R I H T F N O E U H N
I S I X T E E N U V E R O
F O R T Y N E E R H T N W
Y R I N E E T E N I N W T

ONE
TWO
THREE
FOUR
FIVE
SIX
SEVEN
EIGHT
NINE

TEN
ELEVEN
TWELVE
THIRTEEN
FOURTEEN
FIFTEEN
SIXTEEN
SEVENTEEN
EIGHTEEN

NINETEEN
TWENTY
THIRTY
FORTY
FIFTY
SIXTY
SEVENTY
EIGHTY
NINETY
HUNDRED

Each of the mathematical words listed can be found in the puzzle. The words may be horizontal, diagonal, or vertical. They may also be written forward or backward. See if you can find them ALL.

A M L E R P E N T A G O N I L B C O
I E D M R E T N E C H F E D I P S C
G R R O S R J K P O S T U L A T E D
S E O I P P O L Y G O N O R N M L I
A F H X Q E A R E L G N A I R T E A
R L C A S N R C I R C L E A R P C G
O E T U E D V A E W L X E Y O U S O
G X F E C I R R L E B R A L T Z O N
A G I D H C A J L I A K Y E G T S A
H N O B T U S E M T M G L S C N I L
T Y P Q Q L Y R S N O I I E S T A U
Y B P S C A L E N E A X S Z U Y W V
P P C O R R E T E M A I D L I D T E
M L O K T J X I G G B X I H D N H F
P E R I M E T E R E A N O G A X E H
N O P Q N R N S T S E T U V R W O X
K R I E J T H U E R C I R M S I R P
A D J A C E N T S B E T D F A Z E Y
R A E N I L L O C E I V G E G A M I

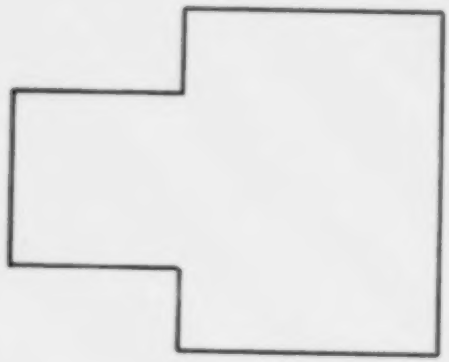
ACUTE
ADJACENT
ANGLE
ARC
AREA
AXIOM
AXIS
BISECT
CENTER
CHORD
CIRCLE
COLLINEAR
DIAGONAL
DIAMETER
HEXAGON
HYPOTENUSE
IMAGE
ISOSCELES
LEG
LINE
OBTUSE
PARALLEL
PENTAGON
PERIMETER
PERPENDICULAR
PLANE
POINT
POLYGON
POSTULATE
PRISM
PROOF
RADIUS
RAY
REFLEX
SCALENE
SEGMENT
SIMILAR
SPACE
SQUARE
THEOREM
TRIANGLE

Each of the mathematical words listed can be found in the puzzle. The words may be horizontal, diagonal, or vertical. They may also be written forward or backward. See if you can find them ALL.

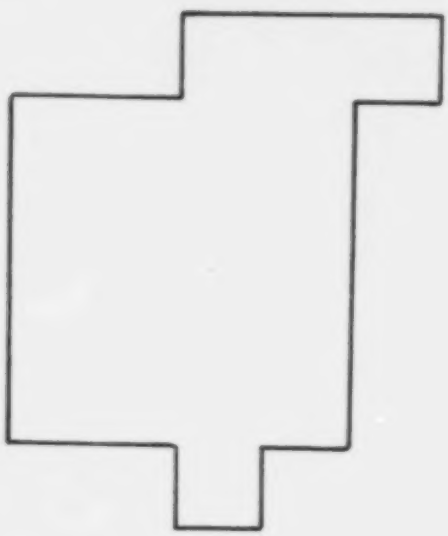
M S N S O I E D D O T S E T N P
N W U A B V E G R E G E T O W W
O M M B E C N E R E F F I D O H
I C E N T D Z E L P I T L U M O
T A R B N R C E M I R P D N I L
A E A F O F A C T O R G O R H E
C L T D I N D C P I J I E N E T
I A O I T E L O T Q T A M V K N
L R R V C N R O U I L H I D P E
P U M I A P R O D U C T Q I R C
I T M S R R T D U O A N W V S R
T A T I F I A V O G I X T I M E
L N W O E D L T E V I T I S O P
U A F N C M A N E Z O Y A O Z E
M B T D E N O M I N A T O R I P

ADDITION
DECIMAL
DENOMINATOR
DIFFERENCE
DIVISION
DIVISOR
EVEN
FACTOR
FRACTION
INTEGER
MULTIPLICATION
MULTIPLE
NATURAL
NEGATIVE
NUMERATOR
PERCENT
POSITIVE
PRIME
PRODUCT
PROPORTION
QUOTIENT
RATE
RATIO
REAL
SET
SUBTRACT
SUM
TIME
WHOLE
ZERO

Suppose the following shape represents a farmer's field and he wants it to be cut into 4 parts equal in size and shape. Draw horizontal and vertical lines to see how he would split his land up among his 4 sons.



Try to split this up into 4 parts equal in size and shape. Remember only horizontal and vertical lines are permitted.



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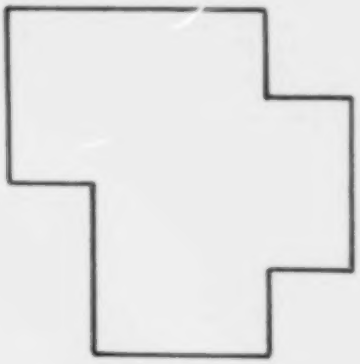

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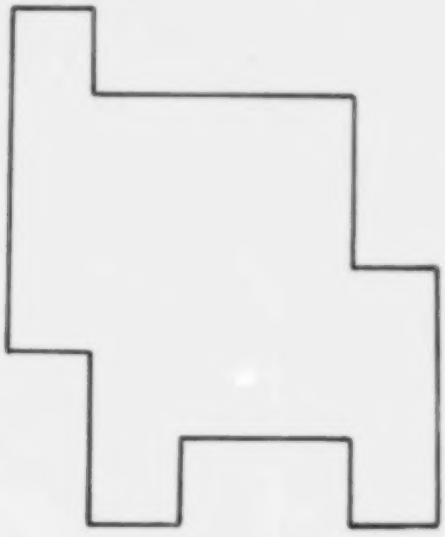

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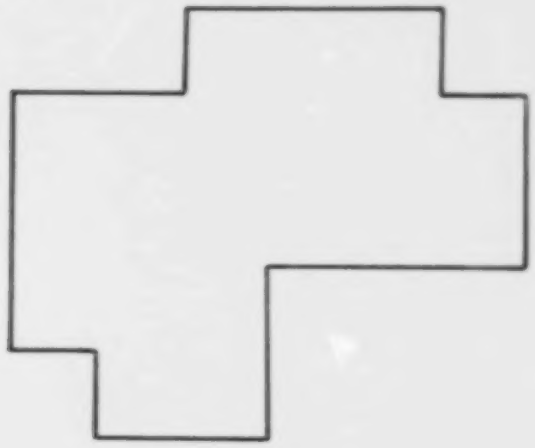

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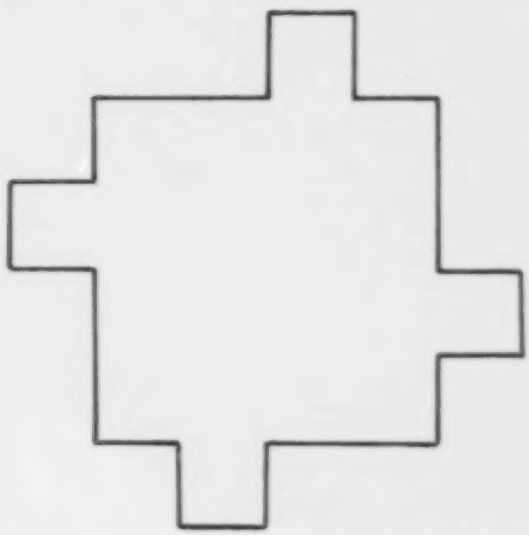
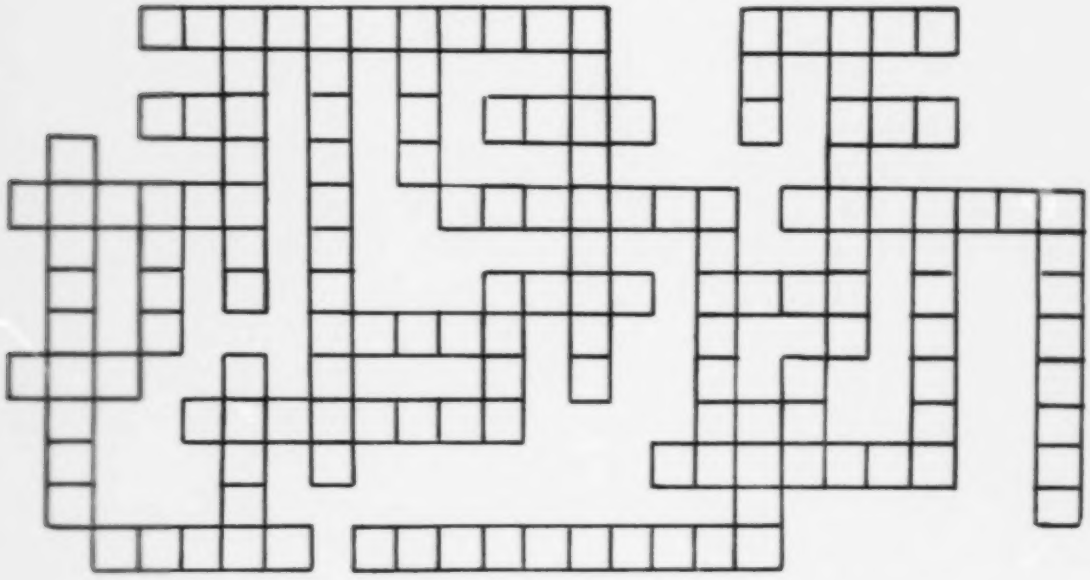


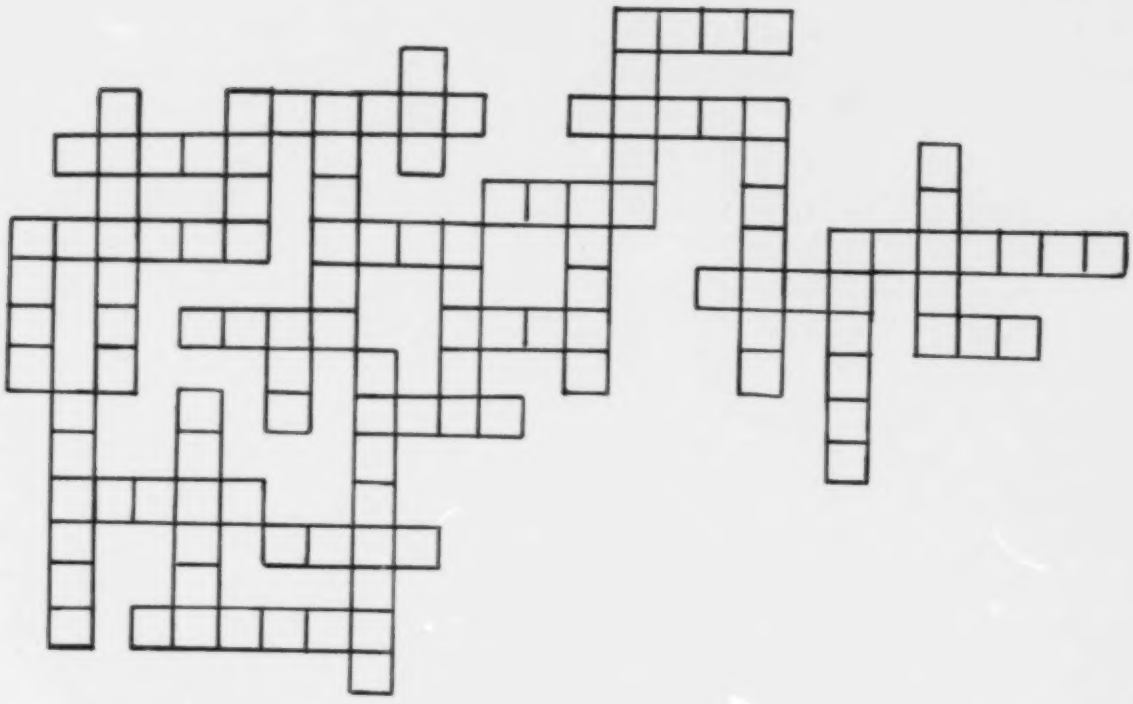
All of the mathematical terms below will fit into the puzzle. Take special notice of the length of each term.



3 Letters	4 Letters	5 Letters	6 Letters	7 Letters
ARC	BASE	ERROR	NUMBER	COMPUTE
BAR	GAIN	ORDER		CECIMAL
LCM	MEAN	PAIRS		ELEMENT
ODD	MODE	TABLE		LOGICAL
SET	NULL			NUMERAL
SUM	REAL			PERCENT
	TIME			

8 Letters	9 Letters	10 Letters	11 Letters
DISCOUNT	REMAINDER	RECIPROCAL	DENOMINATOR
EQUATION	NUMERATOR		MATHEMATICS
FRACTION			

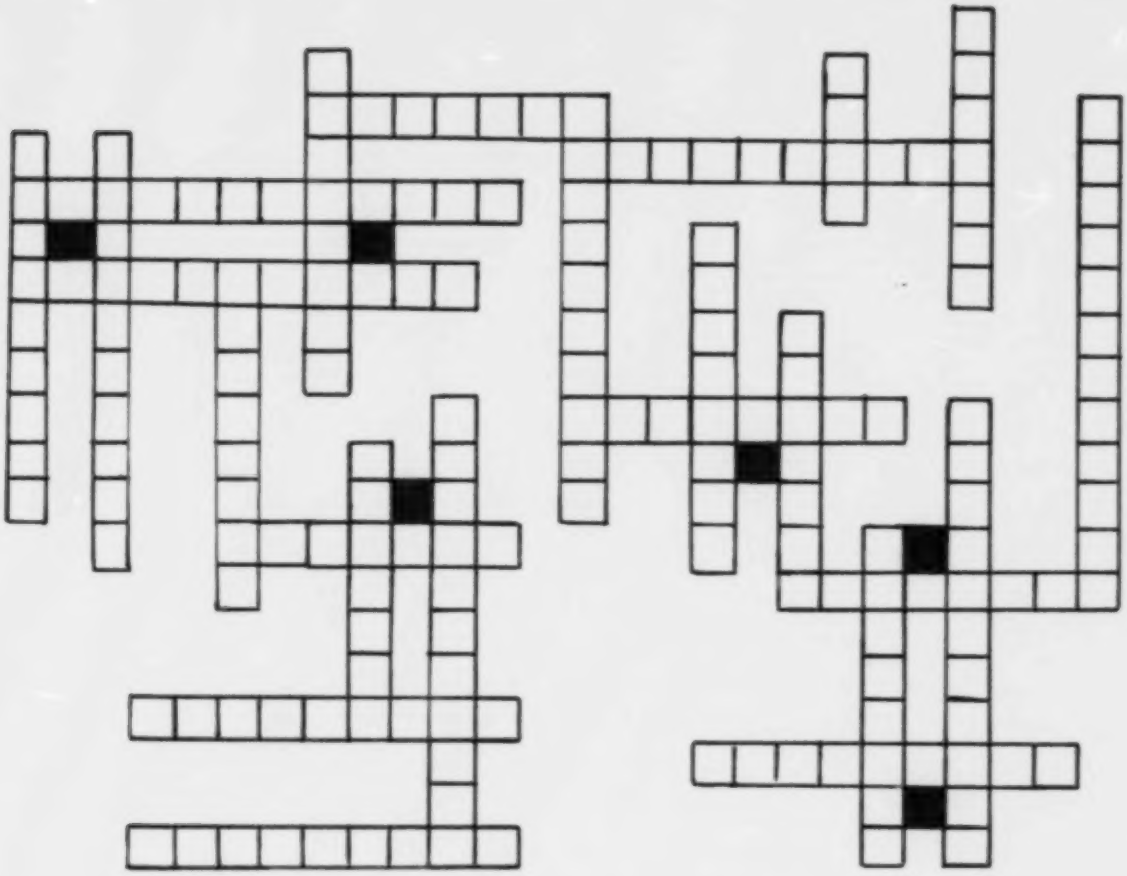
All of the mathematical terms below will fit into the puzzle. Take special note of the length of each term.



3 Letters	4 Letters	5 Letters	6 Letters	7 Letters
CUP	ACRE	LITER	BUSHEL	ENGLISH
ROD	FOOT	METER	FATHOM	HECTARE
TON	GILL	OUNCE	GALLON	MEASURE
	GRAM	POUND	LENGTH	
8 Letters	INCH	QUART	METRIC	
CAPACITY	MILE	RULER	VOLUME	
	PECK	SCALE	WEIGHT	
	PINT			
	TIME			
	YARD			

31

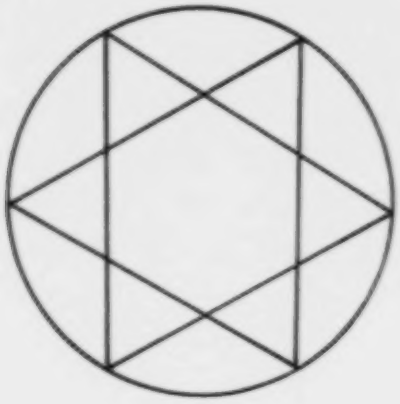
All of the mathematical subjects and careers listed below will fit into the puzzle. Take special note of the length of each term.



4 Letters	7 Letters	8 Letters	9 Letters
MATH	ALGEBRA	BUSINESS	CARPENTER
	BANKING	CALCULUS	ECONOMIST
	CHEMIST	GEOMETRY	MARKETING
	PHYSICS	GRAPHING	TAILORING
	SCIENCE	MECHANIC	
		TOPOLOGY	

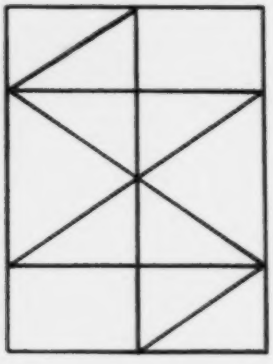
10 Letters	11 Letters	12 Letters
ACCOUNTANT	ELECTRONICS	ARCHITECTURE
ASTRONOMER	MATHEMATICS	TRIGONOMETRY
STATISTICS	PROBABILITY	

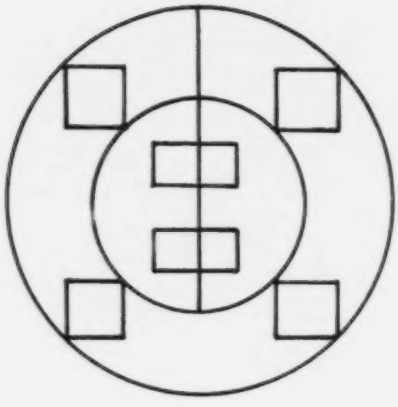
Try to trace the following figures without lifting your pencil. Intersecting or retracing lines are not permitted.



33

Try to trace the following figures without lifting your pencil. Intersecting or retracing lines are not permitted.





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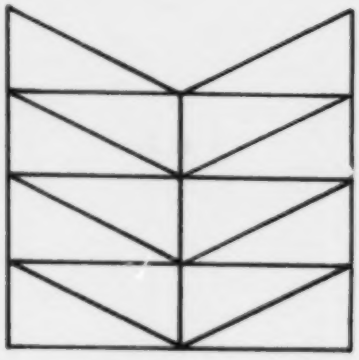
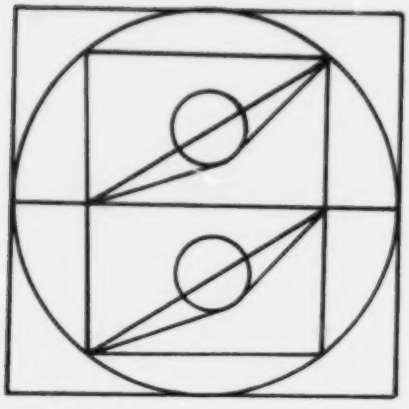




In each set of numbers below you are to CROSS OUT all but 5 numbers. The trick is that the remaining 5 numbers must add up to 50.

1. $3+9+19+6+8+$

$15+20+5+13=50$

2. $7+15+16+21+9+3+$

$4+18+8+11+5=50$

In each set of numbers below you are to CROSS OUT all but 5 numbers. The trick is that the remaining 5 numbers must add up to 50.

1. 5+9+3+26+7+2+

1+15+8+20=50

2. 31+6+7+5+8+

4+17+9+9+

10+37+3+19=50

In each set of numbers below you are to CROSS OUT all but 5 numbers. The trick is that the remaining 5 numbers must add up to 100.

1. 17+38+1+49+

33+19+28+63+

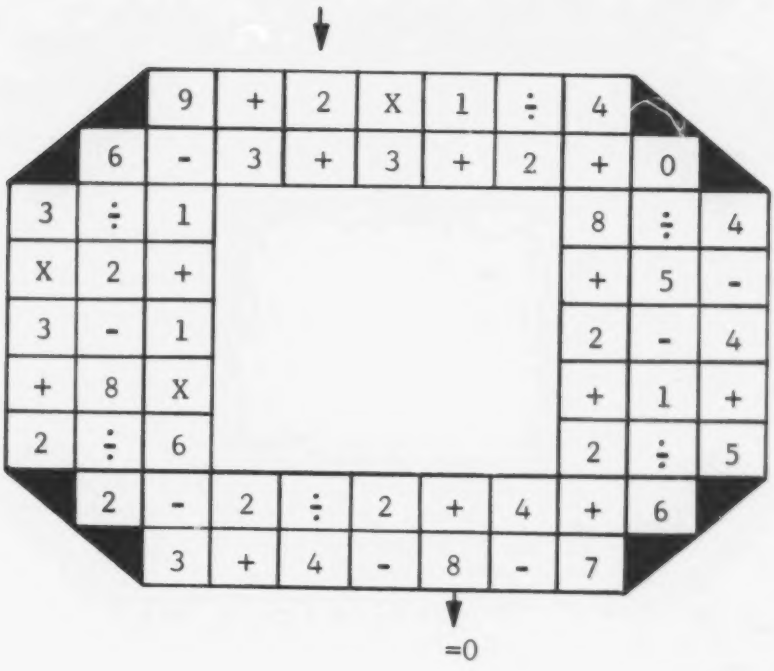
40+36+21=100

2. 46+27+32+17+9+

27+21+22+37+

15+8+41=100

Starting at the beginning square, alternate squares with a number and an operation sign (3 + 5 - 2 ÷ 3 = 2) until you reach the exit square with the listed result. You can only move to touching squares.



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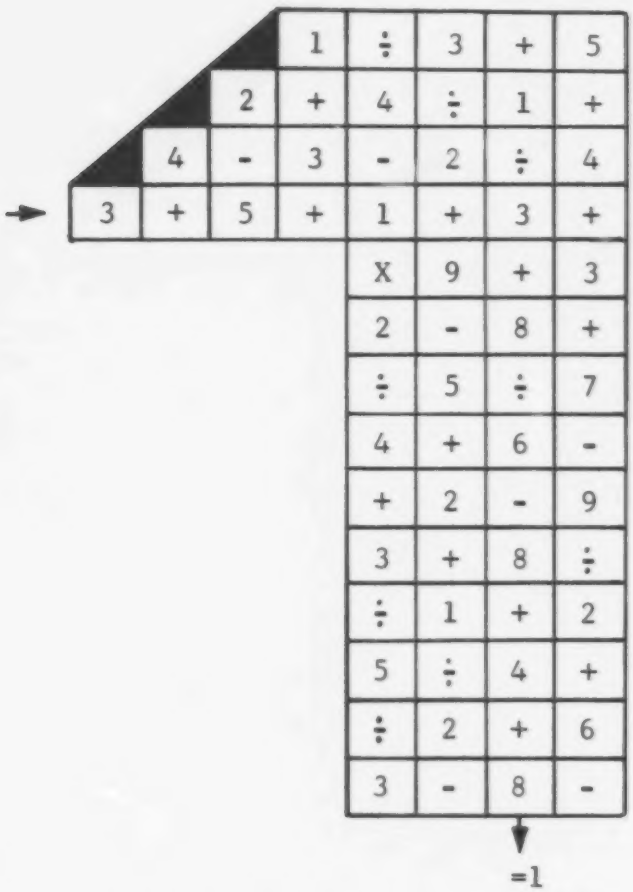

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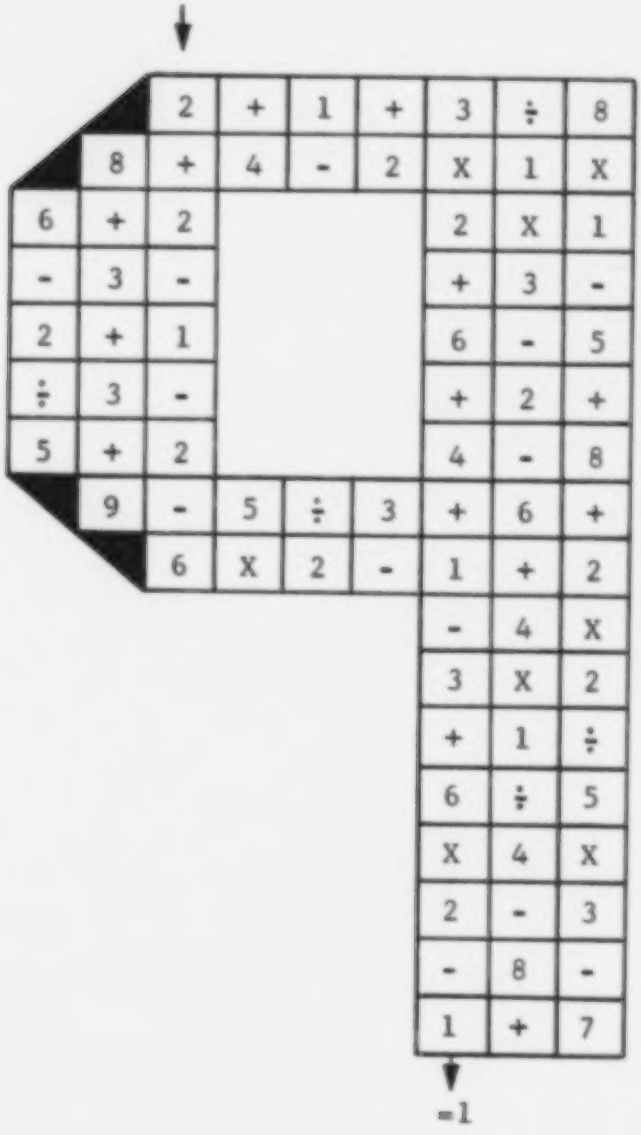
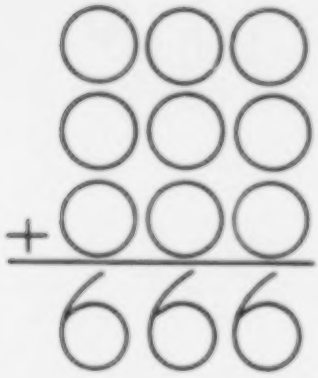
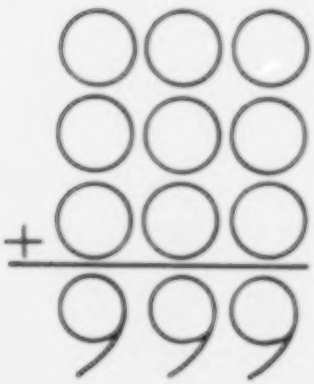


41

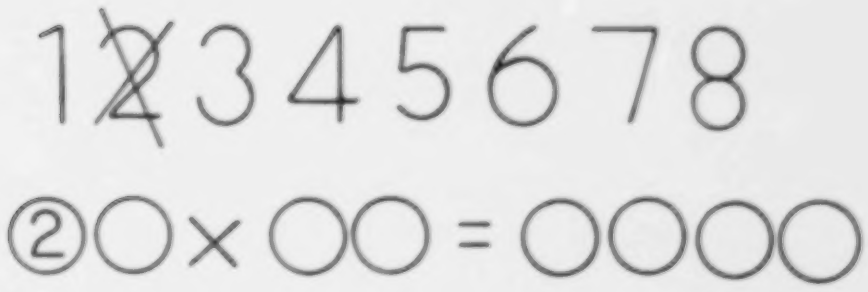
Place the numbers from 0-8 in the nine circles below so that the sum of the 3 digit numbers formed will be 666.



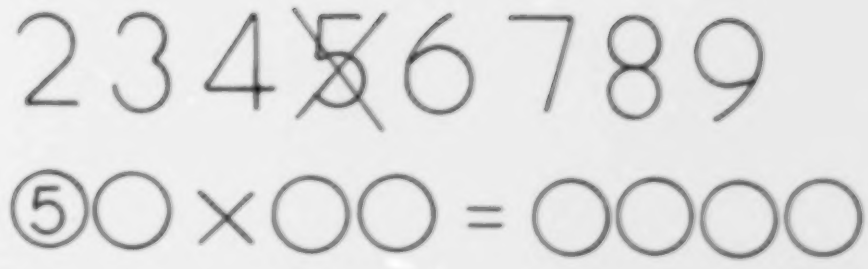
Place the numbers from 0-8 in the nine circles below so that the sum of the 3 digit numbers formed will be 999.



Place four of the eight following numbers in the first four circles. If you have done it correctly, when multiplied your answer will contain all the numbers that you didn't pick. As a help, one of the four numbers has been picked for you.



Now try this one with the numbers given.



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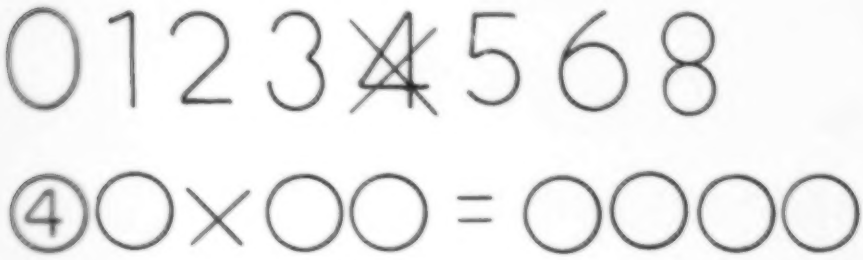

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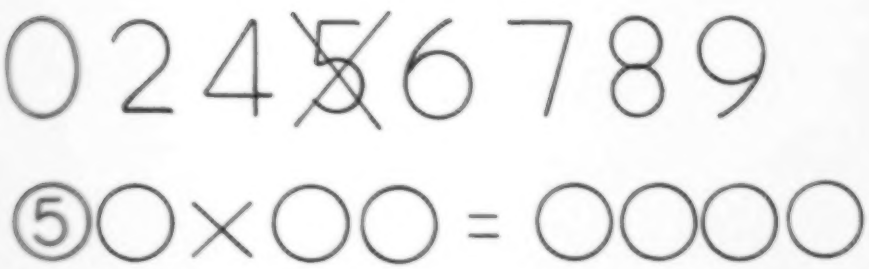


There are four numbers which satisfy all of the statements below. Determine the four numbers and the order in which they appear. Put your answer in the spaces provided.

1. The first and second numbers are prime.

2. The third number is a multiple of the second number.

3. The second number is even.

4. The third number is more than nine and less than twenty.

5. The first number is less than ten.

6. The fourth number is the Least Common Multiple of the first two numbers.

7. The fourth number is the largest of all four numbers.

8. The first number is more than three times the second.

9. The third number is one more than the sum of the first two numbers.

_____ _____ _____ _____

Four girls arrived at a party. The hostess introduced the girls as they arrived. In her introduction the hostess mentioned the girls' favorite hobby, flower, and type of reading material. Determine from the statements below the order in which the girls arrived, their favorite flower, their hobby, and what they like to read. Use the spaces at the bottom to organize your answers.

1. The third girl likes tulips.
2. Kim was neither first nor second to arrive.
3. The girl who likes roses reads fiction.
4. The girl who macremes arrived after the girl who paints.
5. The girl who macremes did not arrive last.
6. Carol was not first nor was she last.
7. The science fiction reader followed Julie.
8. Nancy likes to sew.
9. The same girl likes daisies and reads historical books.
10. Carol does not like carnations.
11. Julie arrived third.
12. The science fiction reader cooks.
13. The fiction reader arrived first.
14. The reader of biographies likes tulips.

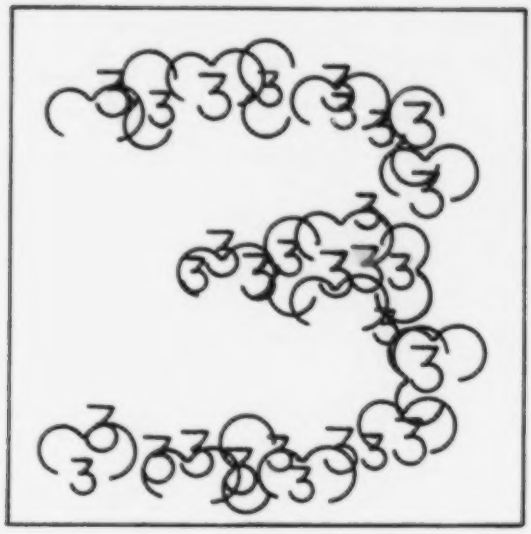
GIRL	_____	_____	_____	_____
FLOWER	_____	_____	_____	_____
HOBBY	_____	_____	_____	_____
READ	_____	_____	_____	_____

Jack, Tom, Rich, and Mike are the best of friends, yet they have many differences. From the statements below determine the favorite sport, soft drink, color, and pet of each of the boys. Also determine the order of their ages. The oldest boy goes in the number one space the next to the oldest in the second space and so on. Use the spaces below to organize your answers.

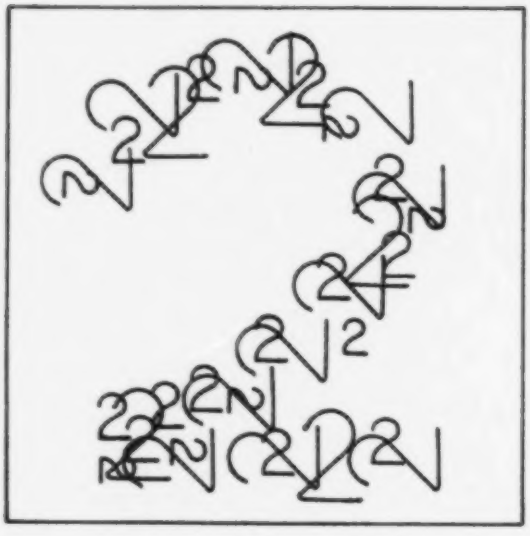
1. The boy who likes yellow plays golf.
2. The youngest boy owns a hamster.
3. The tennis player is on the left of the golf player.
4. The baseball player is not the oldest.
5. The tennis player drinks coke.
6. The basketball player is on the right of the baseball player.
7. The boy who drinks 7-Up owns a parakeet.
8. The Dr.Pepper drinker wears red.
9. The tennis player likes white.
10. The oldest boy owns a dog.
11. The boy on the right of the Pepsi drinker likes blue.
12. The golfer owns a cat.
13. Mike drinks Pepsi and does not wear red.
14. The hamster does not belong to Tom.
15. The oldest boy does not wear red.
16. Tom is not next to the dog owner.
17. Mike is not the youngest.
18. Rich drinks coke.
19. Jack does not own a parakeet.
20. Tom likes blue.
21. The boy who wears blue drinks 7-Up.

	#1	#2	#3	#4
BOY	_____	_____	_____	_____
SPORT	_____	_____	_____	_____
DRINK	_____	_____	_____	_____
COLOR	_____	_____	_____	_____
PET	_____	_____	_____	_____

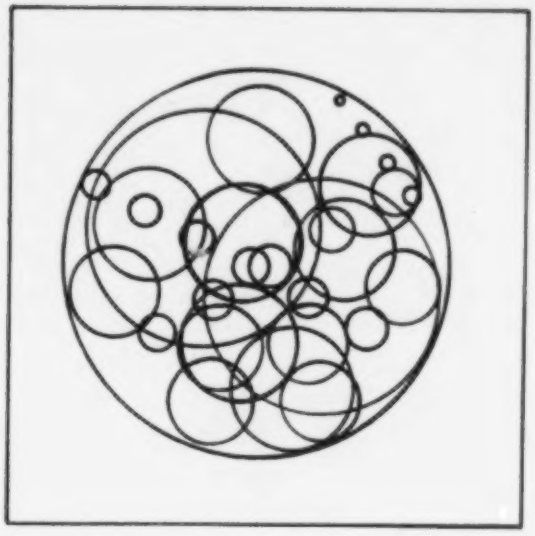
How many "3's" do you see?



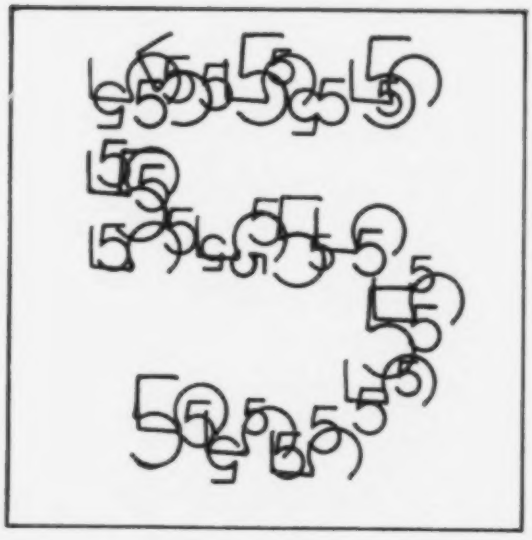
How many "2's" do you see?



How many "0's" do you see?

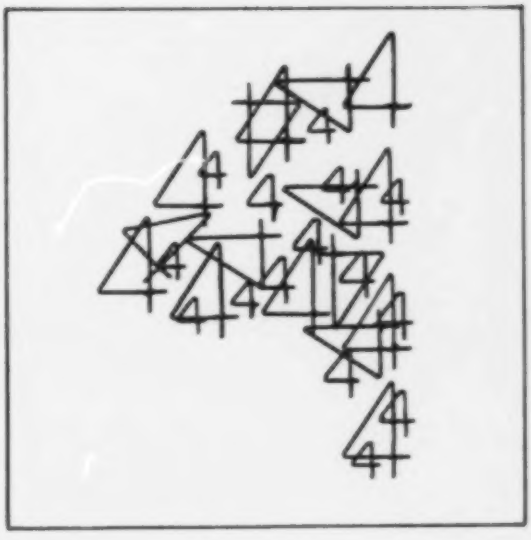


How many "5's" do you see?



How many "7's" do you see?

How many "4's" do you see?



Start with the word at the top. Follow the directions and see what word results.

IMPORTANT

1. Move the A between the M and P

   - - - - - - - - - -

2. Replace the R with an E

   - - - - - - - - - -

3. Move the first letter to the end

   - - - - - - - - - -

4. Exchange the P and the 6th letter

   - - - - - - - - - -

5. Change the 7th letter to an A

   - - - - - - - - - -

6. Add an S to the front

   - - - - - - - - - - -

7. Add a C to the end

   - - - - - - - - - - - -

8. Make the 5th letter an H

   - - - - - - - - - - - -

9. Move the first letter to the end

   - - - - - - - - - - - -

10. Make the 6th letter an M

    - - - - - - - - - - - -

51

Start with the statement at the top. Follow the directions and see what new statement results.

I HATE TO LISTEN BUT

1. Rewrite the statement as all one word

   ---

2. Exchange the 4th and 13th letters

   ---

3. Make the first T an F

   ---

4. Remove the 2nd E

   ---

5. Make the B a D

   ---

6. Move the 10th letter to the end

   ---

7. Exchange the 10th and 12th letters

   ---

8. Exchange the 9th and 11th letters

   ---

9. Make the 1st T an L

   ---

10. Move the E between the I and the T

    ---

11. Put an R between the I and the E

    ---

12. Remove the 2nd, 14th, and 15th letters

    ---

13. Put a C between the 1st and 2nd and between the 11th and 12th letters

    ---

14. Put an O after the double L and the T

    ---

15. Add 3 letters: a W before the D, an I after the T, and an N in the 19th position

    ---

16. Make a word separation after the 1st, 4th, and 10th letters

- --- ------- ----------

Start with the statement at the top. Follow the directions and see what new statement results.

YOU CAN MAKE YOURSELF FEEL GOOD

1. Rewrite the statement as all one word

   -

2. Exchange the 4th and 5th letters

   -

3. Remove all the U's

   -

4. Change the first and last O's to E's

   -

5. Remove the R, the K, and both Y's

   -

6. Exchange the 2nd and 4th and the 10th and 18th letters

   -

7. Exchange the 5th and 11th letters

   -

8. Remove the 5th, 6th, 12th, 13th, and 16th letters

   - - - - - - - - - - - - - - - -

9. Make the 5th E an N

   - - - - - - - - - - - - - - - -

10. Add a B to the front and a T to the end

    - - - - - - - - - - - - - - - - - -

11. Exchange the 5th and 6th letters

    - - - - - - - - - - - - - - - - - -

12. Make the A an I

    - - - - - - - - - - - - - - - - - -

13. Make the G an O

    - - - - - - - - - - - - - - - - - -

14. Remove the 4th E

    - - - - - - - - - - - - - - - - -

15. Remove the D

    - - - - - - - - - - - - - - - - -

16. Move the I between the N and the C

    - - - - - - - - - - - - - - - - -

17. Move the T between the 2nd E and the O

    - - - - - - - - - - - - - - - - -

18. Make word separations after the 2nd, 6th, and 8th letters

    -

You can do the problems below by hand or on a calculator. If you write your answer using the numbers a calculator prints, you'll get a word to complete the given statement. You can read the word if you turn your paper upside down.

Calculator numbers:

A DONUT AND ZERO HAVE WHAT IN COMMON? A ---

$(259+365)\times 6-40$

_____

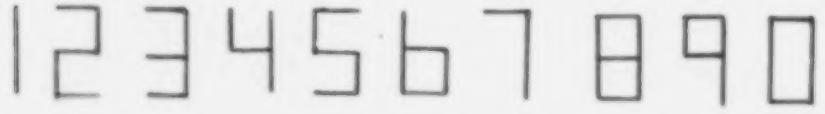
TO HAVE SOUL YOU NEED A

$(80+123)\times 15$

_____

You can do the problems below by hand or on a calculator. If you write your answer using the numbers a calculator prints, you'll get a word to complete the given statement. You can read the word if you turn your paper upside down.

Calculator numbers:



A MAP OF THE EARTH IS CALLED A

63215 - 29684 + 5000 - 452

_____

WHEN WATER REACHES 212° F IT

100000 ÷ 2 + (3100 + 4008)

_____

You can do the problems below by hand or on a calculator. If you write your answer using the numbers a calculator prints, you'll get a word to complete the given statement. You can read the word if you turn your paper upside down.

Calculator numbers:

WHEN YOU CHARGE THINGS YOU ARE SENT A

$$(300 \times 15) + 3200 + (3 \times 6)$$

_____

WHEN YOU SEE A FRIEND DON'T SAY

$$(100000 + 230594) \times 3 - 184268$$

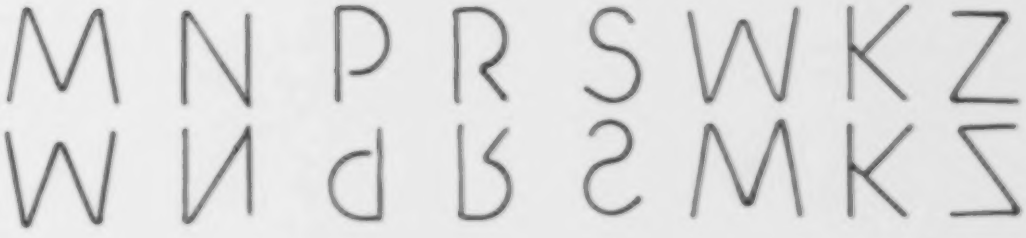
_____

SAY

$$(.269 \times .08) + .05 + .00582$$

_____

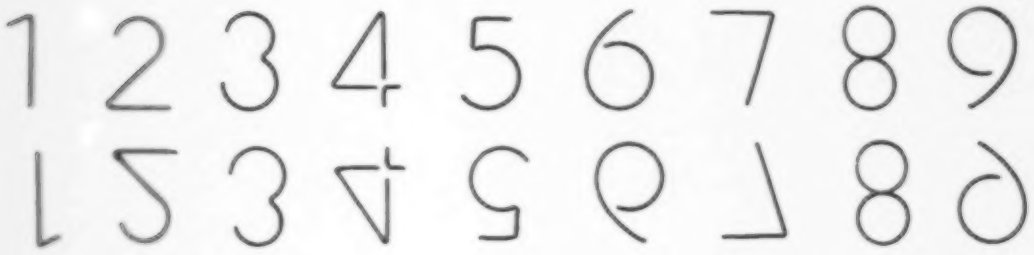
Drawn under each number on this page is another number.
The two numbers are supposed to be mirror images of each other.
CROSS OUT any pair of numbers that are not mirror images of each other.

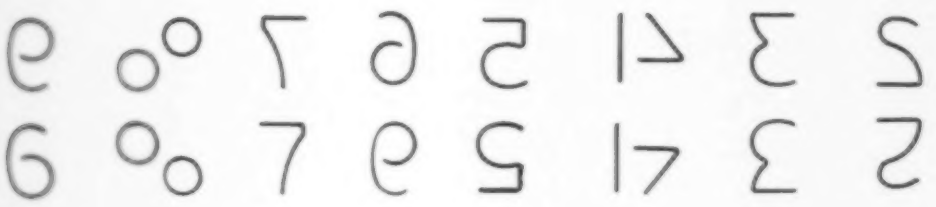


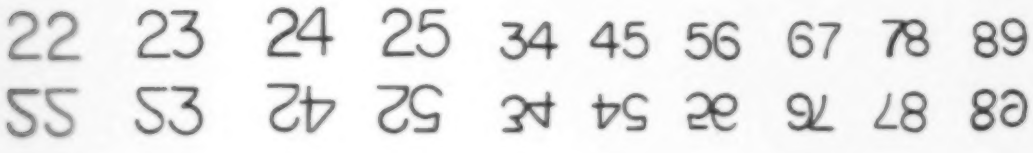
MIRROR IMAGES

57

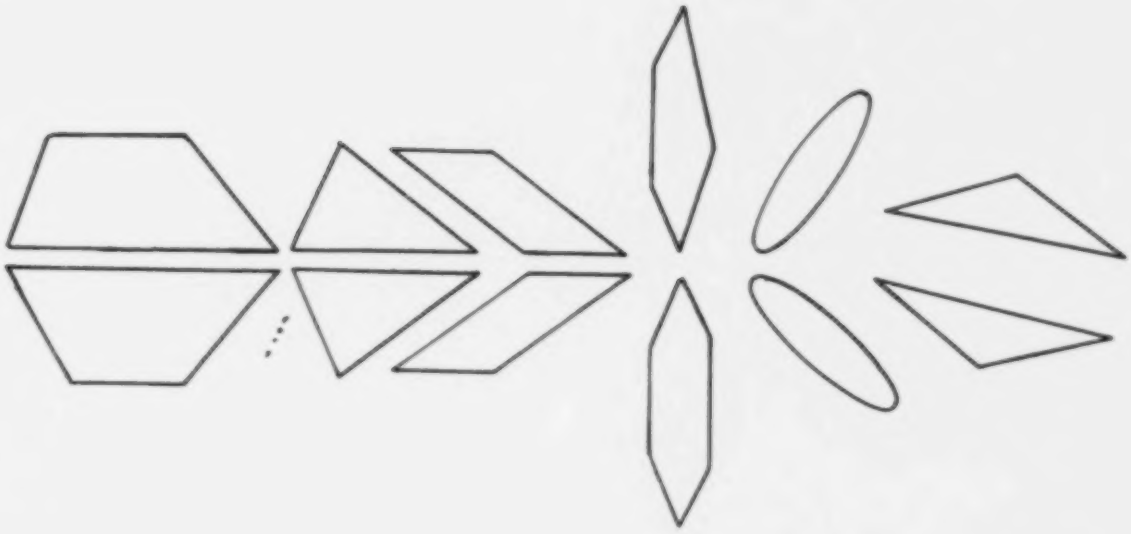
Drawn under each number on this page is another number.
The two numbers are supposed to be mirror images of each other.
CROSS OUT any pair of numbers that are not mirror images of each other.

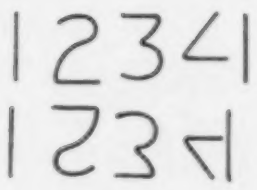




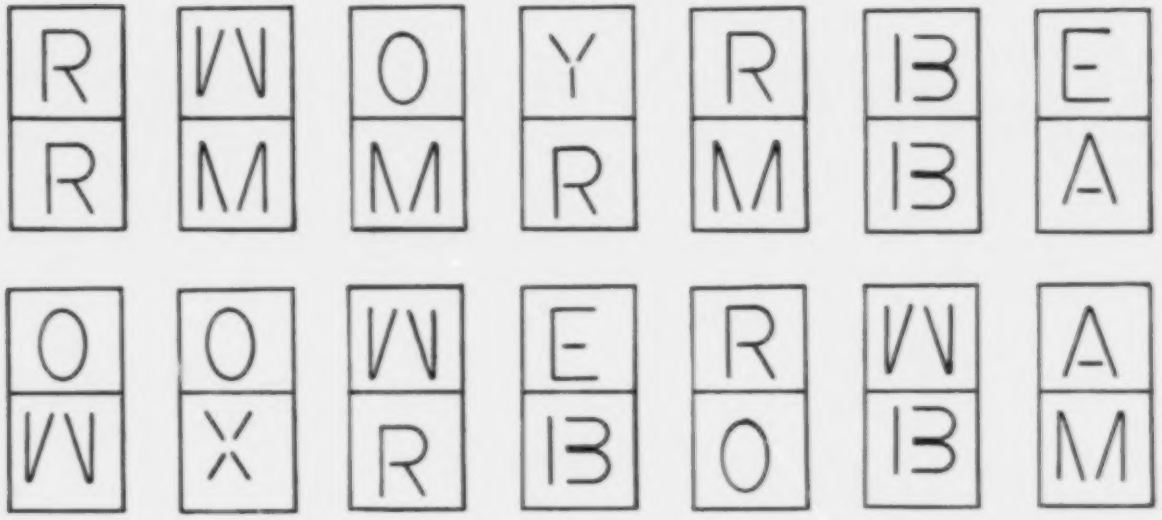


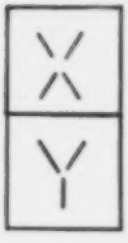
Under each of the numbers, figures, or letters on this page a mirror image of the figure is drawn. CROSS OUT any pair which might not be mirror images of each other.

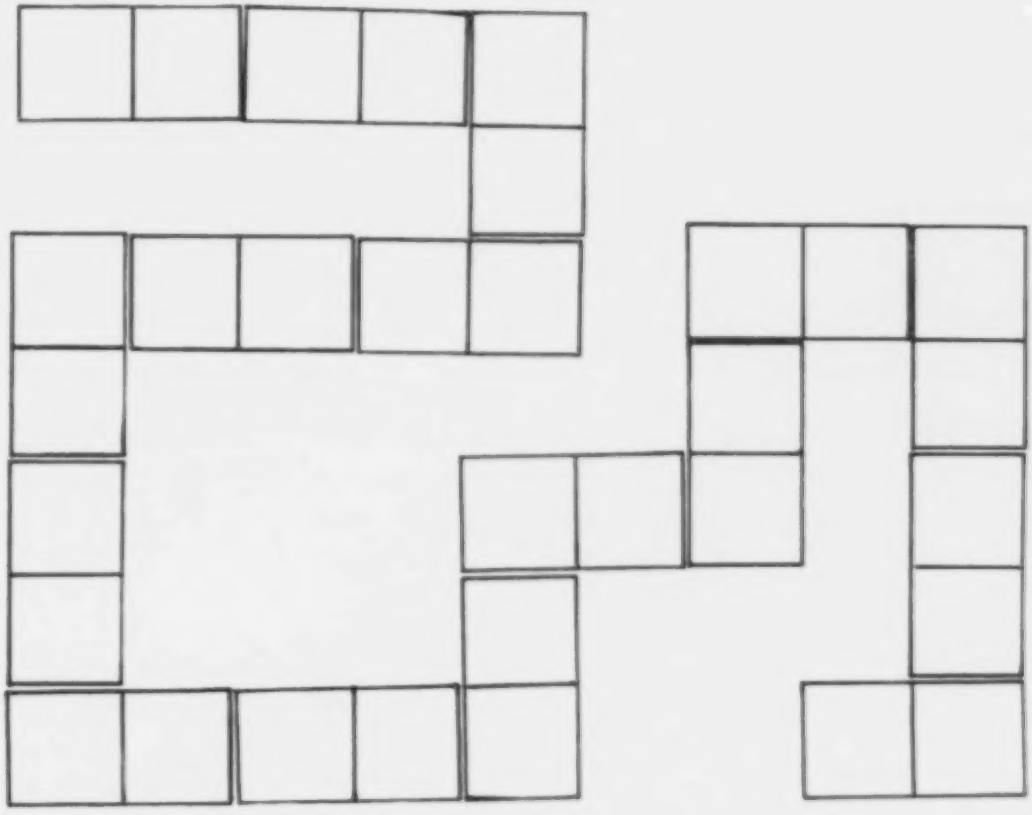




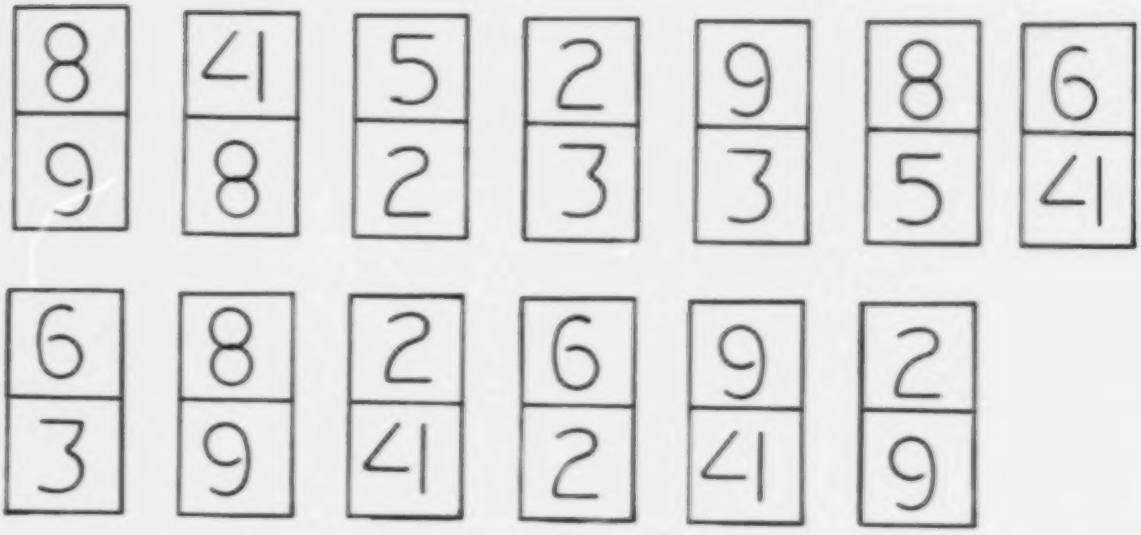
There are 16 mathematical dominoes below. Fit them into the pattern so that a 7 touches a 7, a 3 touches a 3, and so on. You may turn the dominoes to fit the pattern.

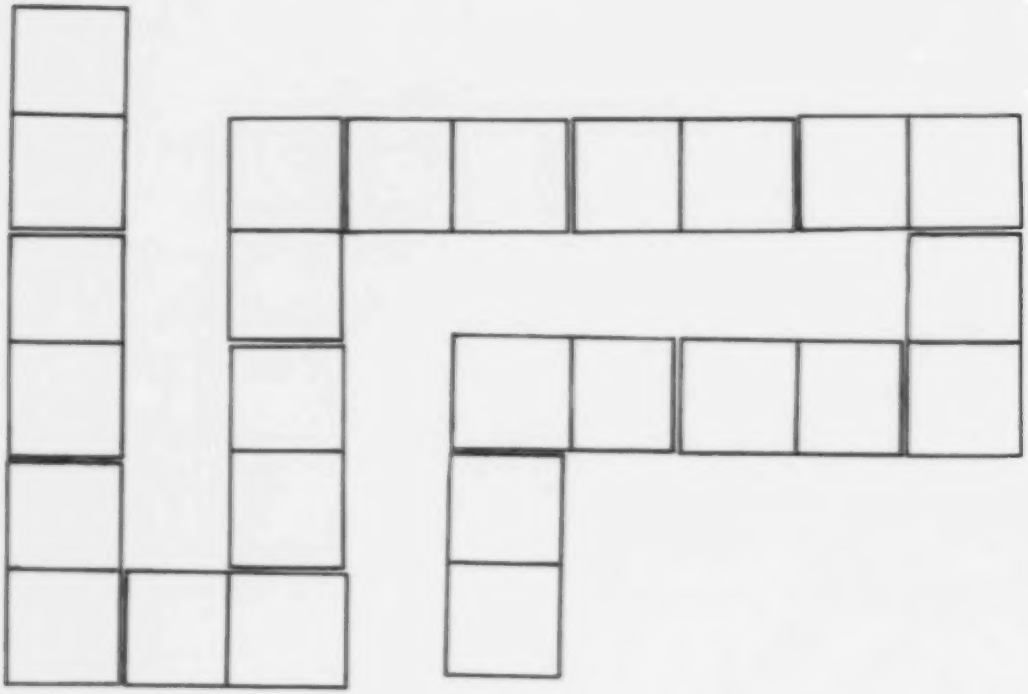






There are 13 mathematical dominoes below. Fit them into the pattern so that a 7 touches a 7, a 3 touches a 3, and so on. You may turn the dominoes to fit the pattern.





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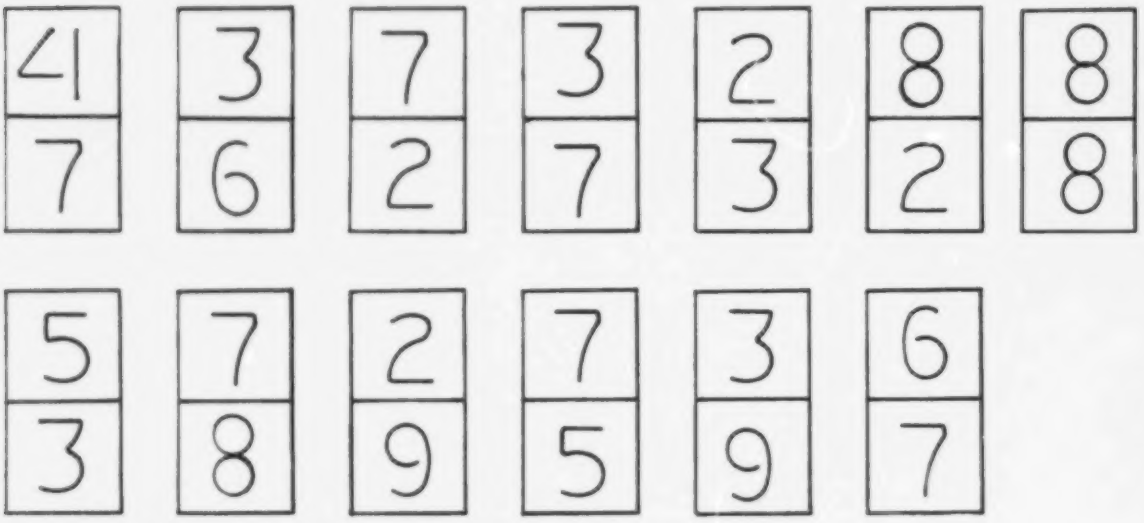
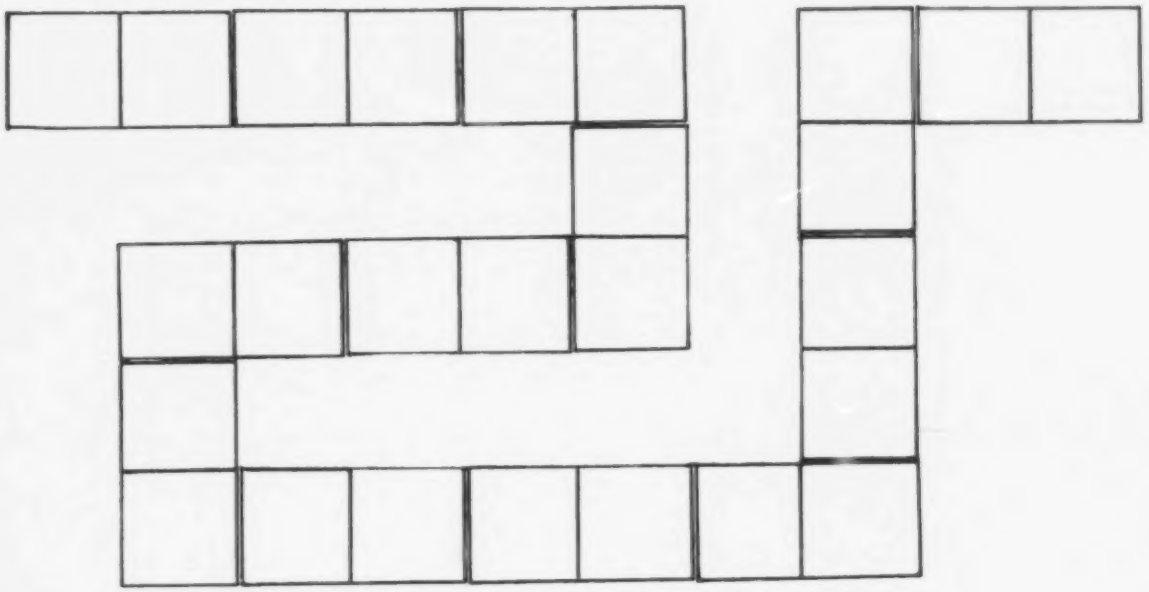




THE STORY THAT COUNTS!

Some of the following words are used in the story below. See if you can find where they belong.

count	four	eight	twelve
zero	five	nine	twenty
one	six	ten	thousand
two	seven	eleven	million
three			

One day Mr. Don Number went _____ a restaurant. He was tired of hamburgers and had come _____ a big juicy steak.

The waitress who _____-ed him knew him well. She knew he would order _____-Island dressing on his salad, fillet-_____, and tom_____to juice to drink. However, she began asking him for his order---"_____, coffee, or milk?"

Mr. Number liked the restaurant especially because it was always so clean and orderly. The tables were always placed neatly in _____.

Don lived in Germany before moving to the United States two years ago. Often he would forget and say _____ instead of no. Mr. Number would always say "I shouldn't do that anymore since America is my _____-_____ now.

THE END

WHOLE NUMBER STORY

The following sixteen words are used in the story below. See if you can find were they belong. Have fun!

add	subtract	multiply	divisor
addend	minuend	factor	quotient
total	subtrahend	product	dividend
sum	borrowing	division	remainder

Mr. Bob Peppers has been selling cardboard boxes for the Ajax Container Company these past eight years. _____ say he will _____ to work his way up to the presidency of the company. Many times they rumored he would be transferred to work under a different _____ of the company, but they could never _____ a new salesman to the staff that could sell a _____ like Mr. Peppers.

However, Bob had two bad faults. He was always _____ money even though he made a good salary and the _____ payed on his company stock was very high. Once all the salesmen went to lunch and Bob asked the waiter to bring the _____ to the lounge were they were all seated. He then told the waiter the _____ amount the restaurant wanted for a meal was ridiculous. "You could _____ $2.00 off each meal and still be too much" said Bob. "They _____ each meal by three times what it should be then put the price on the menu. Oh well, could I borrow ten dollars from you Jack?" Bob added. His other fault came from being an old retired army man. Sometimes he would forget and say _____ion as people came into his office.

One _____ of his personality that people liked was how he always took time to be with his children. Yesterday he was helping his daughter remember what the answer in a division problem was called and what was the name for the number which is subtracted from another. "_____ and _____" she said. I will have to _____ a way of remembering things she often forgets, thought Bob.

THE END

SCHOOL DAYS STORY

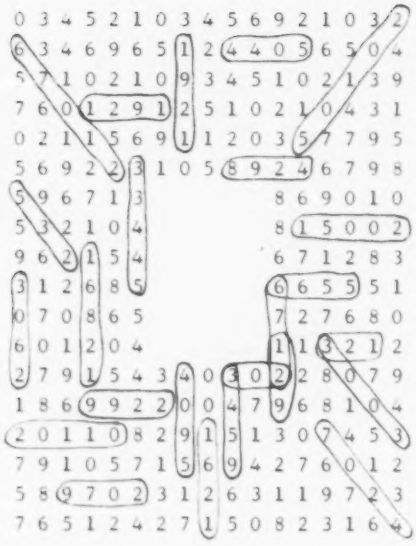
Some of the following words are used in the story below. See if you can find where they belong.

bell	chair	locker	ruler
board	desk	pen	student
book	eraser	pencil	table
chalk	grade	principal	teacher

Mrs. Annie Anxious the history teacher really knew her subject. She could instantly recall any country's _____ for a specify era and tell you the facts behind any re_____ion. I remember her saying that studying history could _____ to be a better person. I suppose that is why she would get so _____couraged when her students seemed _____ed with class.

Once a year Annie would get a very bad cold and the flu which she couldn't get over until she got a shot of _____lum. She liked her job so well that they would almost have to _____ in her room to keep her home during this time. Last year something exciting happened to her while she was home. A television game show called her on the phone and she won five hundred dollars. When she returned to school she _____ed an annoucement to the bulletin board saying she would treat all of her students to a _____let or _____y soda.

THE END



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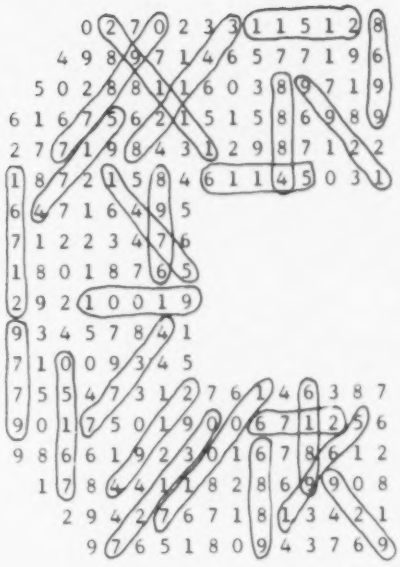

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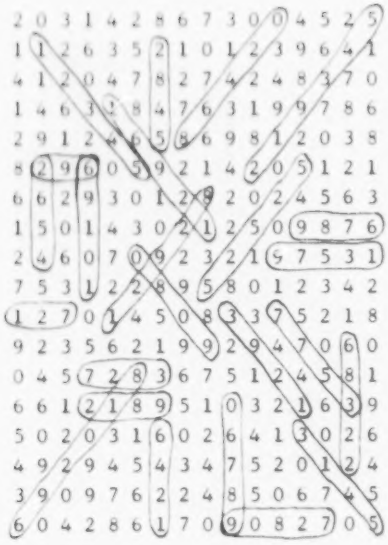

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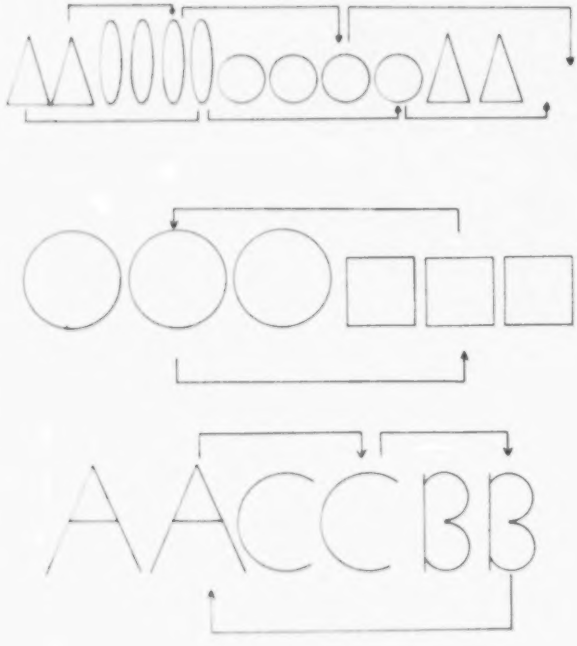

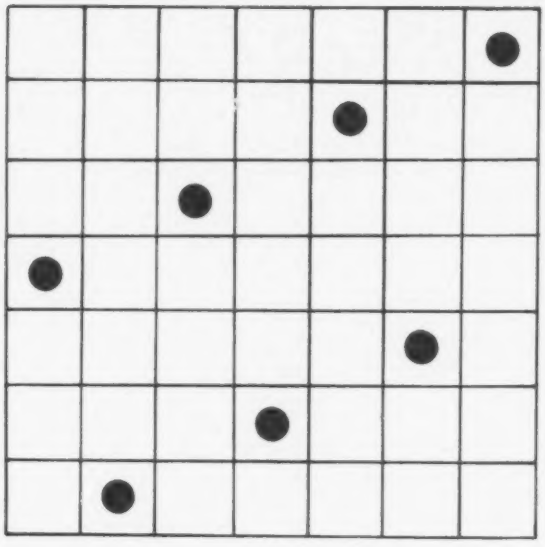

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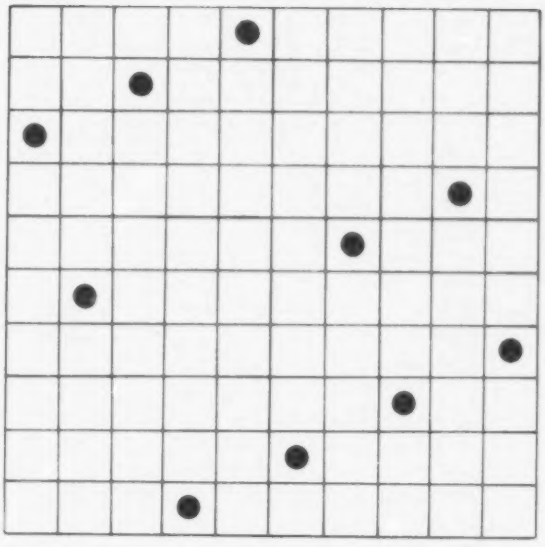

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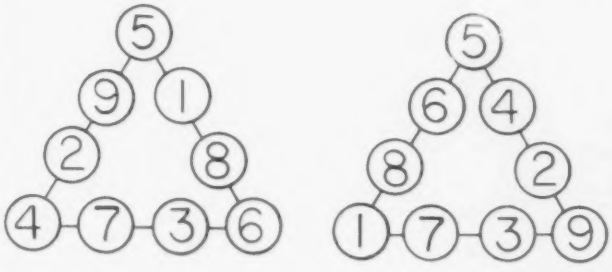

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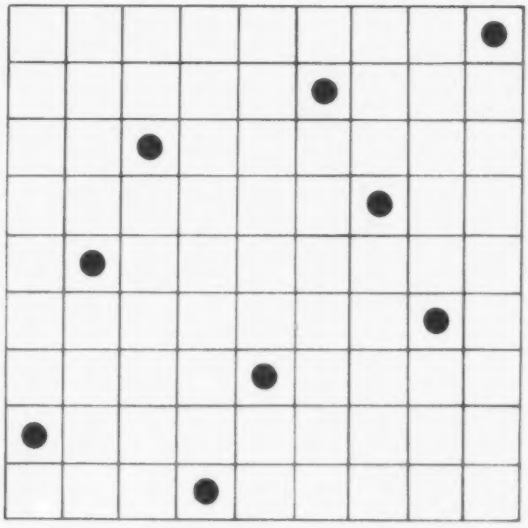

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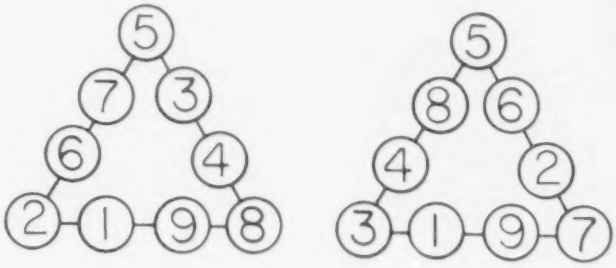

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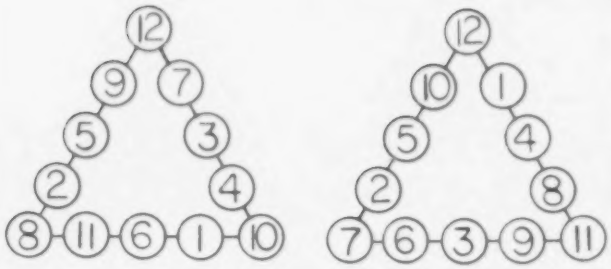

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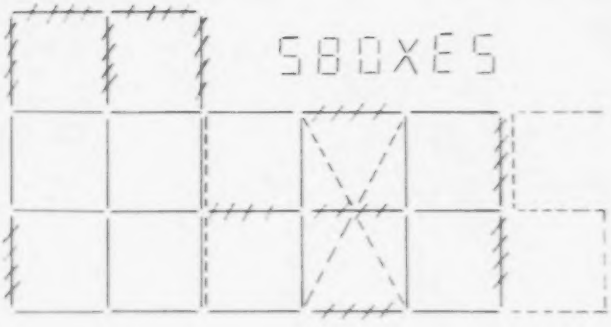

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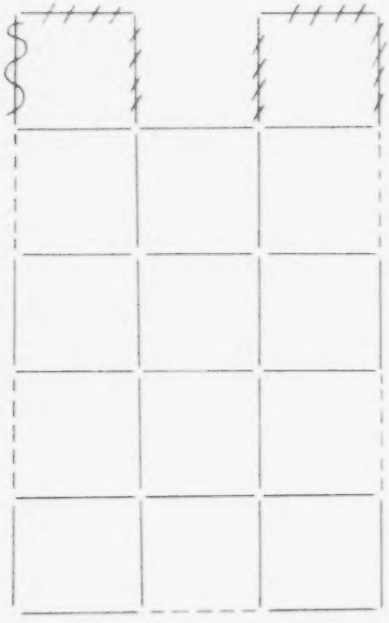

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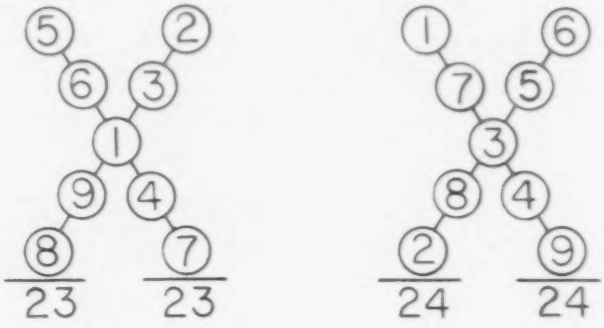

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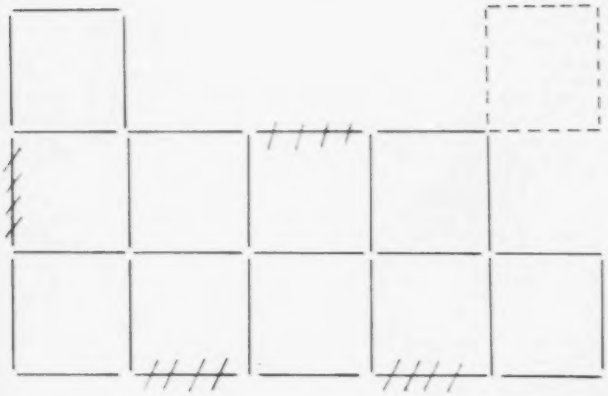

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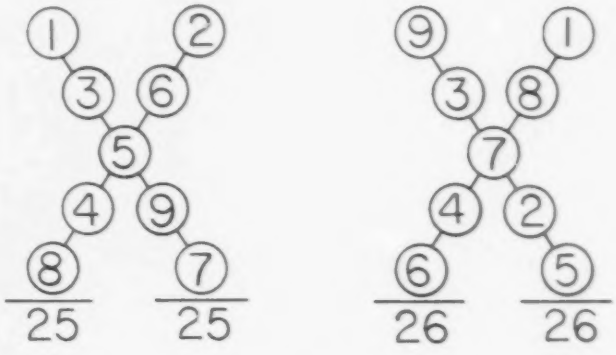

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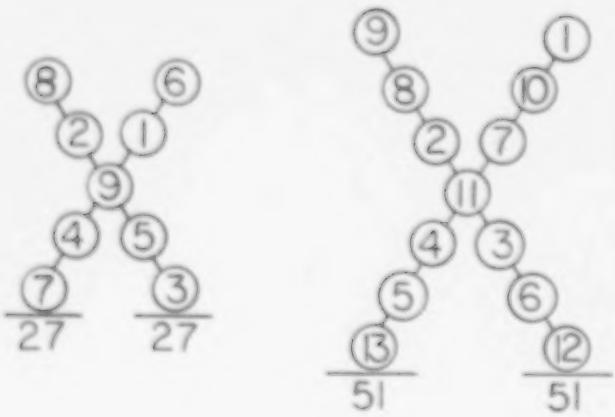

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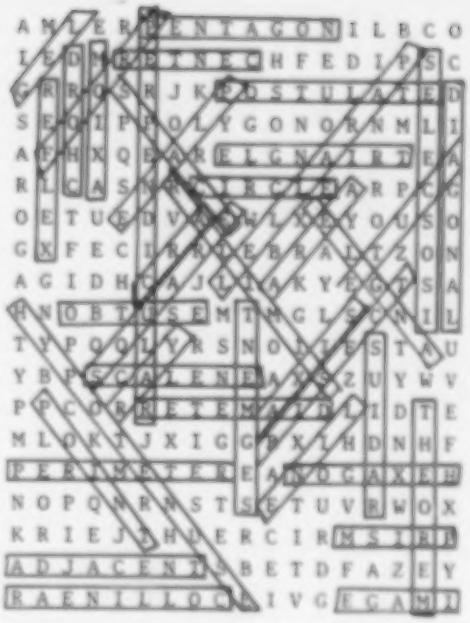

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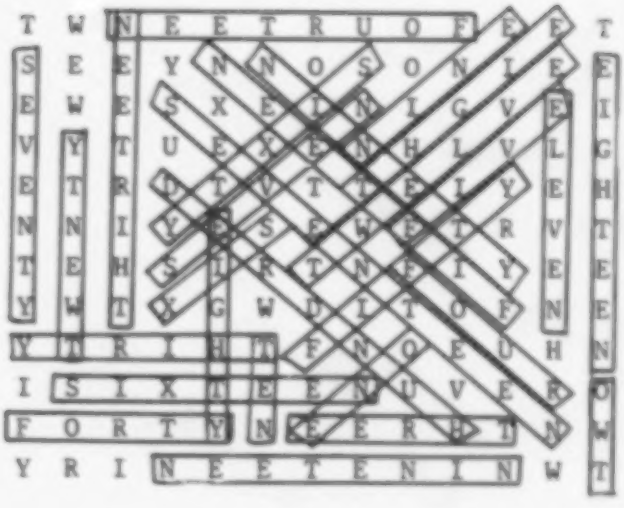

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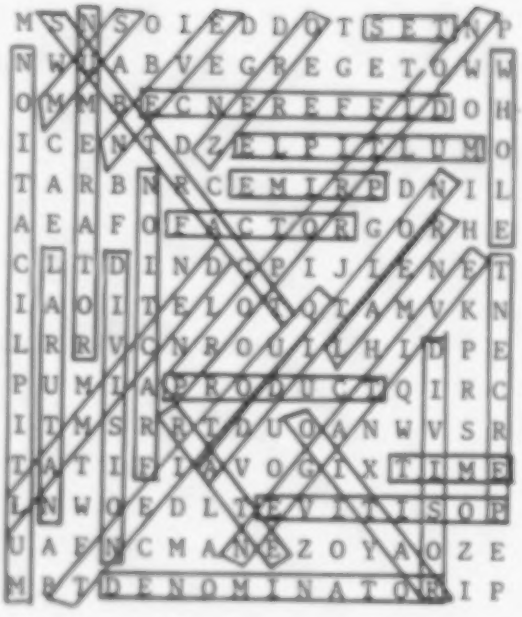

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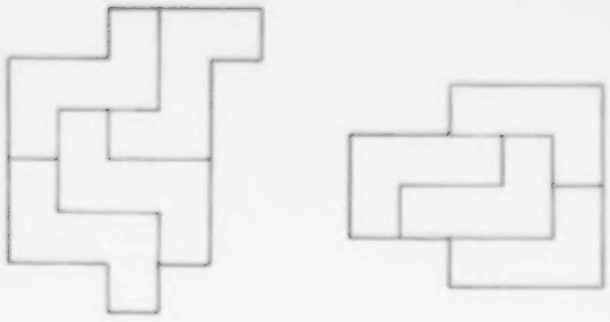

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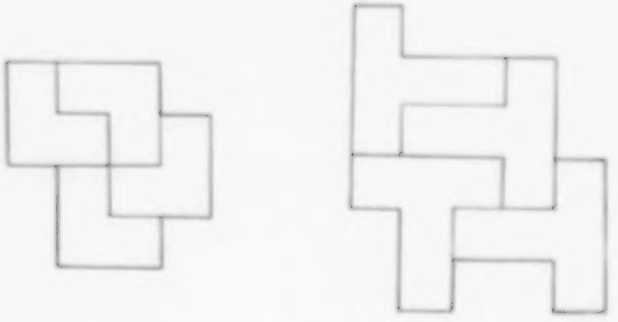

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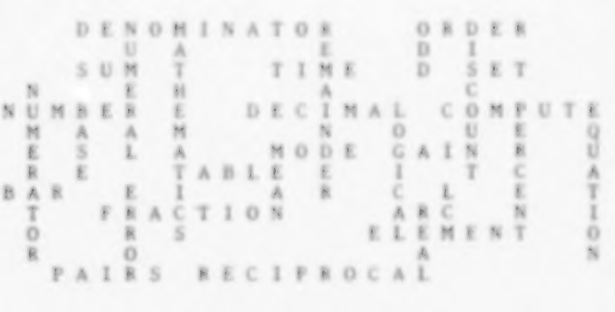

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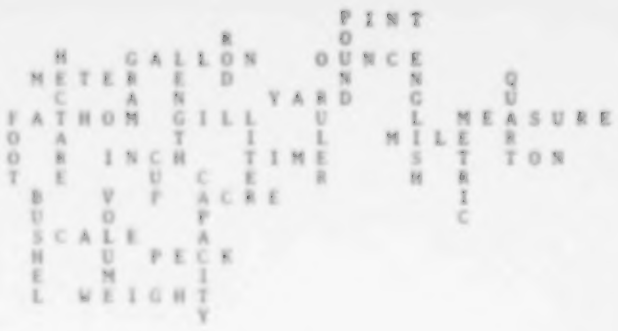

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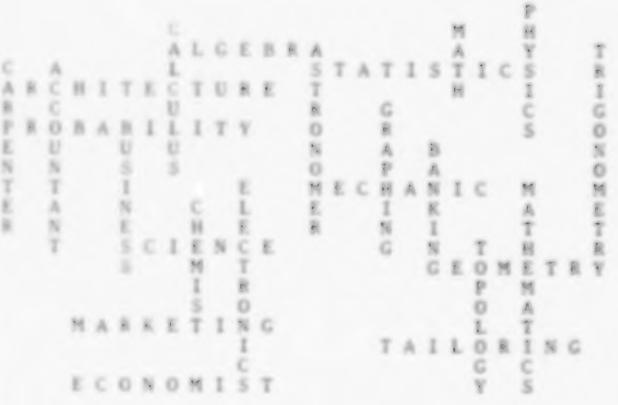
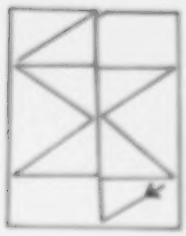


27A

28A



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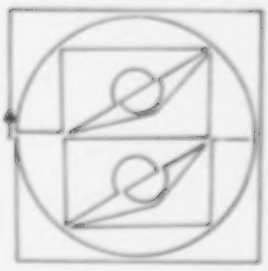


30A

Page 31

1. Cross out the 9, 6, 20, 13

2. Cross out the 15, 16, 21, 3, 4, 8

Page 32

1. Cross out the 9, 26, 2, 1, 8

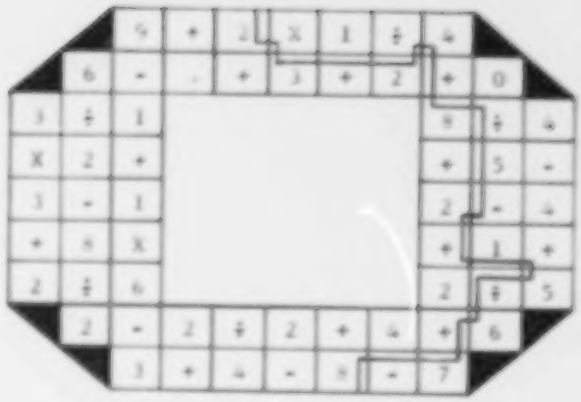
2. Cross out the 31, 6, 5, 4, 10, 37, 3, 19

Page 33

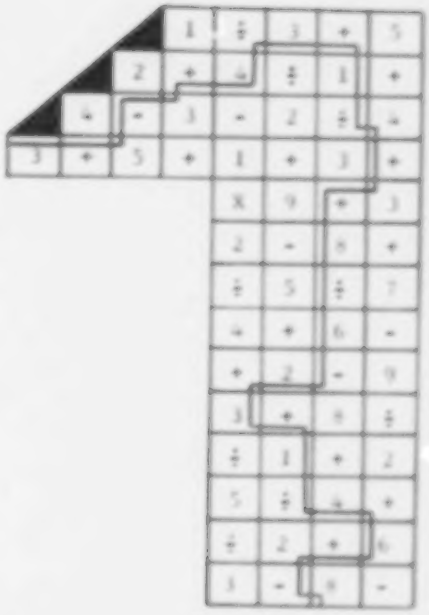
1. Cross out the 38, 49, 19, 40, 36, 63

2. Cross out the 46, 32, 9, 22, 37, 15, 41

31A-33A

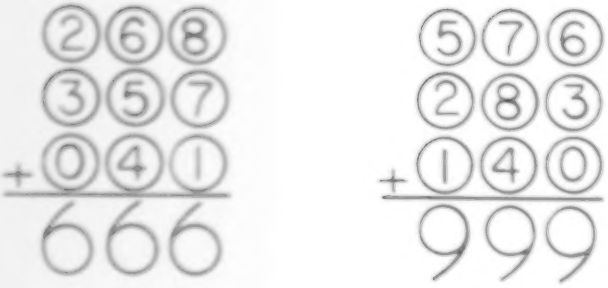


34A

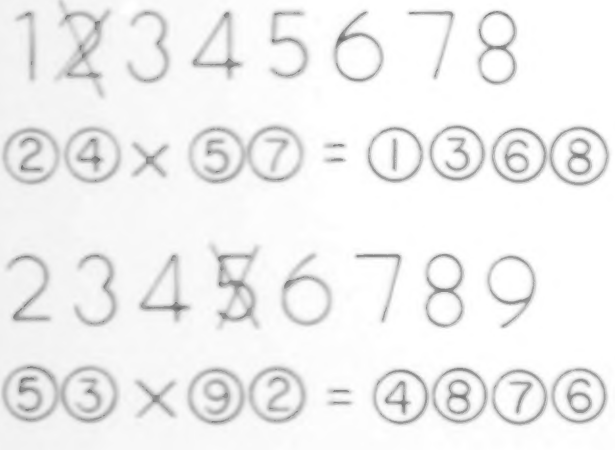


35A

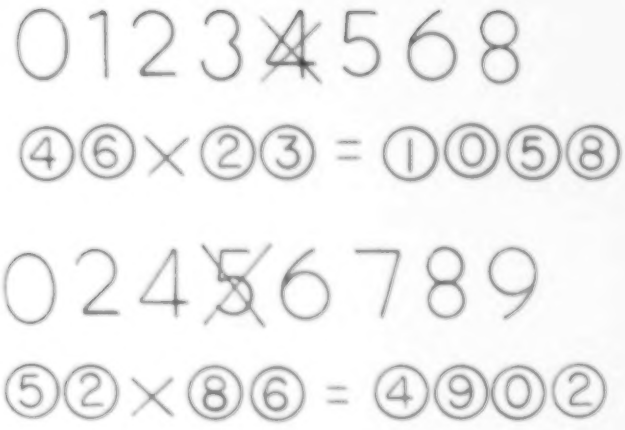
36A



37A



38A



39A

Page 40

7 2 10 14

Page 41

Nancy	Carol	Julie	Kim
Rose	Daisy	Tulip	Carnation
Sew	Paint	Macrame	Cook
Fiction	Historical	Biography	Science Fiction

Page 42

Rich	Mike	Tom	Jack
Tennis	Golf	Baseball	Basketball
Coke	Pepsi	7-Up	Dr. Pepper
White	Yellow	Blue	Red
Dog	Cat	Parakeet	Hamster

40A-42A

Page 43

There are 37 2's.

There are 48 3's.

Page 44

There are 31 0's.

There are 45 5's.

Page 45

There are 47 7's.

There are 31 4's.

43A-45A

Page 46

MATHEMATICS

Page 47

I CAN FOLLOW DIRECTIONS

Page 48

BE NICE TO SOMEONE

46A-48A

Page 49

HOLE

SHOE

Page 50

GLOBE

BOILS

Page 51

BILL

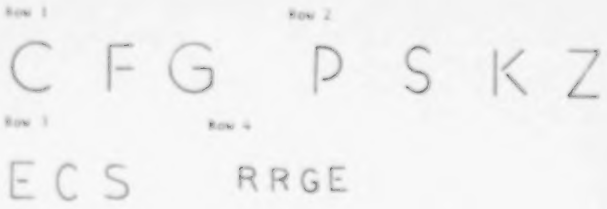
HI SLOB

HELLO.O

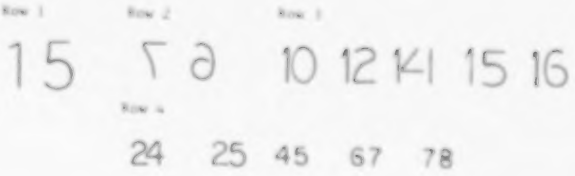
49A-51A

The top figure of each pair to be crossed out is given.

Page 52

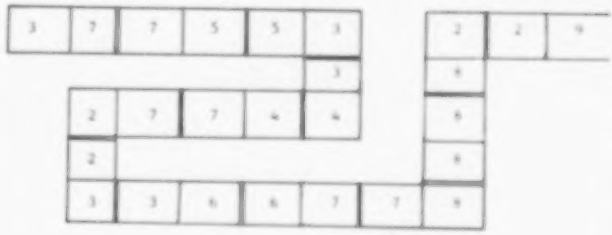


Page 53

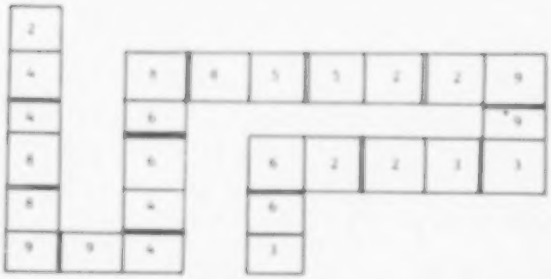


Page 54

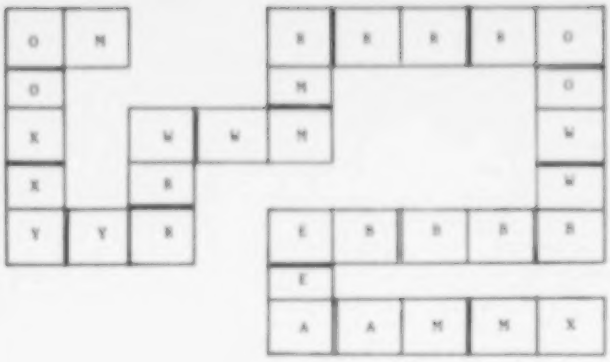
52A-54A



55A



56A



57A

Page 58

1. two
2. four
3. ten
4. thousand
5. million
6. eight
7. twenty
8. zero
9. nine
10. count
11. three

Page 59

1. sum
2. remainder
3. division
4. add
5. product
6. borrowing
7. dividend
8. minuend
9. total
10. subtract
11. multiply
12. addend
13. factor
14. quotient
15. subtrahend
16. divisor

Page 60

1. ruler
2. bell
3. teacher
4. desk
5. board
6. pencil
7. locker
8. pen
9. chalk
10. chair

58A-60A

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